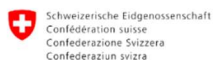


What support do Uzbek entrepreneurs need?

Policy lessons from a household survey

Roberto Claudio Sormani, Maddalena Honorati, Elia Pietro Boe

A study funded by the Partnership for Economic Inclusion and the Support Program for a Socially, Environmentally, and Financially Sustainable Cotton Value Chain in the Republic of Uzbekistan Multi-Donor Trust Fund.



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Introduction

Self-employment is the predominant form of economic activity and source of jobs in low- and middle-income countries (Ayyagari et al., 2014; Haltiwanger et al., 2013). Self-employment accounted for about 43 percent of the workforce in Uzbekistan in 2020 (International Labour Organization [ILO]), while informal employment represented about 59 percent of total employment in 2019 according to the Ministry of Employment and Poverty Reduction (MEPR). While most self-employment activities do not ever grow beyond subsistence size based on international evidence, they represent the main source of income for the poor and vulnerable and, in a few cases, a first step to evolve into growing businesses.

The self-employed are a heterogeneous group, requiring different policies. Some are innovative entrepreneurs with growth potential and ambitions,¹ whereas others engage in small productive activities with little motivation to expand and create new jobs. Some people start their own businesses, sometimes quitting another job to do so. Others become self-employed out of necessity; in the absence of better job opportunities, this is their only option to earn income and survive. Clearly, the policy implications differ for different types of entrepreneurs: not all ‘entrepreneurs by necessity’ may need entrepreneurship support. Targeting of business development services and financial support, therefore, is critical for interventions to be cost-effective.

Programs supporting livelihood and entrepreneurship are important policy instruments to boost the income of poor and vulnerable people when well targeted. They address poverty traps and labor market constraints related to limited labor demand, lack of skills, financial and nonfinancial constraints, and mobility barriers. In fact, the poor and vulnerable face financial constraints due to high interest rates and collateral requirements and nonfinancial constraints due to the lack of business knowledge, practices, and management capital and limited access to markets (value chains) and networks.

The Government of Uzbekistan (GoU) has increased its commitment to support entrepreneurship in the recent 5 years. In its Poverty Reduction Strategy, the GoU has singled out self-employment as a poverty reduction tool. In addition to concessional microloans which have been the most prevalent entrepreneurship support policy, a wide array of programs have been launched since 2019 to help vulnerable people (with a special focus on youth and women) start new businesses, by providing in-kind capital and complementary support measures such as training. With the exception of ‘Every Family is an Entrepreneur’, most of these programs are administered at the local level by mahallas through the Youth Notebook and Women Notebook and delivered through nongovernmental organizations (NGOs) and local agencies. Continued support to entrepreneurship was renewed by the government for 2023, mostly through reduced taxes for individual entrepreneurs and subsidies, loans, and compensations.

The strategy to support entrepreneurship, however, is still at its incipient stages and requires to be informed by more rigorous evidence on the needs of the target population. An International Finance Corporation (IFC) report (Islam, 2019) has noted that the microfinance-based solutions to entrepreneurship programs in Uzbekistan have been used to target a wide range of entrepreneurs with very different needs: micro and medium entrepreneurs. The approach has already been found to rely heavily on microcredit, with an incentive structure toward disbursement and a large share of non-

¹ The degree of growth potential and ambition, of course, varies. For example, according to the Global Entrepreneurship Monitor 2010 Global Report (Kelley et al., 2011), around 75 percent of new entrepreneurs, on average, do not expect to grow their business to more than four workers.

performing loans. This lack of differentiation between target groups has been identified as a limit to the performance of lending subsidies. Indeed, in the absence of alternative livelihood support programs for the poor and vulnerable, microloans attract a base of beneficiaries with low capacity to repay. A more tailored approach meeting the needs and aspirations of the self-employed is required to ensure that government financial support is put to the best productive use by beneficiaries. Lack of systematized monitoring of impact, however, limits any possibility to cater to the needs of the different groups of beneficiaries.

Qualitative evidence among young men and women points to both financial and nonfinancial constraints to entrepreneurship. Interest in self-employment is high among youth as entrepreneurship is seen as a pathway to earn more based on qualitative evidence collected with unemployed youth; recent graduates; young workers; and representatives of the Chamber of Commerce, employment support centers (ESCs), and youth groups (Honorati & Marguerie, 2021). Key challenges to entrepreneurship include the lack of skills and training opportunities leading to weak business plans, limited access to soft loans with concessional rates and lack of alternatives to access capital, high competition with established firms, and limited local markets in rural areas. Young women face additional barriers to entrepreneurship related to social norms and care responsibilities. Despite government initiatives to promote youth and women entrepreneurship, less attention has been paid so far to the development of the necessary skills and practices to start a business (for example, basic accounting, developing a business plan, socioemotional, and personal) as reported by representatives of Youth Union and Chamber of Commerce.

Little is known about the incidence, preferences, and entrepreneurship aspirations among the poor and other vulnerable groups. The lack of opportunities for entrepreneurship for the poor and other vulnerable groups is reported as an important issue by social assistance beneficiaries—two times more than for the general population, based on a survey of people’s opinion on the priority of improving the supply of jobs and the low salaries and wages in their own community (Honorati & Carraro, 2019, based on Listening to Citizens of Uzbekistan 2018 [L2CU]). The percentage of people in work in the bottom quintile is significantly less than in the top quintile. In addition, the job quality of people in the bottom quintile is lower (that is, seasonal, occasional, or temporary), increasing the chance that they will lose their job and income source. Results from the World Bank L2CU high frequency data reveal dramatic declines in employment and incomes during the months following the COVID-19 pandemic outbreak beginning in April 2020 as well as high levels of concern about the health and economic impacts of the pandemic among the population. Long-lasting job losses have been heavily concentrated among the self-employed. The share reporting any self-employment fell by 67 percent in April 2020 and remained down 20 percent in December compared to 2019 as opposed to the share of wage employment which fully recovered. The decline in self-employment was initially more severe in urban than rural areas.

The World Bank designed and fielded a new survey in 2022 to improve the understanding of the characteristics, needs, perceived constraints, and aspirations among existing and potential entrepreneurs in Uzbekistan. The survey has been designed to be nationally representative of existing entrepreneurs in Uzbekistan (Box 1). Key modules included information on entrepreneurial skills, aspirations, and preferences to complement information provided in the household budget survey (HBS) and labor force survey (LFS). The analysis of the survey has been combined with program-level information for the main entrepreneurship support programs in Uzbekistan and key informant interviews (KIIs) with administrators of selected programs at the national and the local level as well as representatives of community leadership. The mixed methods approach was intended to combine detailed information

about the selected programs (scale, budget, type of intervention, and results when available) and the views of their management at the national level, detailed understanding of the processes followed at the local level at different stages of implementation, an understanding of the needs and constraints faced by those who would be the potential beneficiaries of these programs, and feedback on these programs from those entrepreneurs or potential entrepreneurs who have used them.

The objective of this note is to inform a more tailored approach to economic inclusion policies for a diverse group of entrepreneurs. Recognizing the differences in aspirations and needs of existing and potential entrepreneurs in Uzbekistan, the analysis aims to identify optimal policy solutions for different groups of entrepreneurs: successful entrepreneurs who are motivated to grow, small-scale entrepreneurs by necessity with no ambitions to grow, rural women planning to start a business, women with mobility constraints, and urban youth planning to start a business. To do so, the note will present the key highlights of the analysis on entrepreneurs' characteristics and their performance, aspirations, and needs in terms of public policy support. By comparing it with qualitative evidence collected from program administrators, the note puts forth policy recommendations and solutions.

This note complements qualitative analysis conducted under the Building Entrepreneurial Mindset and Skills in Uzbekistan activity. The activity,² supported by the Partnership for Economic Inclusion and the Multi-Donor Cotton Trust Fund, aims to deepen the understanding of critical aspects of the current design and implementation of entrepreneurship support programs for the economic inclusion of the poor and vulnerable groups (ultra-poor and specific vulnerable groups such as youth and women), programming gaps, and options to strengthen the effectiveness of entrepreneurship support interventions in the Uzbekistan's context. The note is complemented by an inventory of programs provided by national-level organizations between 2019 and 2022 and by a best practice note compiling findings from desk reviews, direct observations, and international evidence on the design and governance of economic inclusion interventions.

² Building entrepreneurial mindset and skills in Uzbekistan (P172867). The activity is funded by the Partnership for Economic Inclusion and the Support Program for a Socially, Environmentally, and Financially Sustainable Cotton Value Chain in the Republic of Uzbekistan Multi-Donor Trust Fund.

Box 1. Entrepreneurs in Uzbekistan (EiU) World Bank survey

The survey—representative at the national level—was designed to represent current and potential entrepreneurs in all economic sectors, including agriculture. The survey methodology aimed at (a) surveying a nationally representative sample of households; (b) estimating the number of current and potential entrepreneurs in each household, through an initial ‘household screening’ questionnaire; and (c) conducting in-depth interviews of individual entrepreneurs and potential entrepreneurs. The survey was conducted with a computer-assisted personal interview (CAPI) methodology. Details on the sampling methodology of the survey are provided in Annex 3.

The survey was collected between May and July 2022. From a nationally representative sample of 2,696 households, the survey identified 1,110 households with either current or potential entrepreneurs and targeted for a follow-up interview with family members eligible for the study. Among respondents, and after removing current entrepreneurs owning firms with 15 or more workers, the final sample size is 509 individuals: 394 existing and 115 potential entrepreneurs.

A second survey—not the object of this note—conducted with computer-assisted telephone interview (CATI) was aimed at a sample of beneficiaries of a selected start-up subsidy and at a sample extracted with random digit dialing.

Entrepreneurs in Uzbekistan: Who are they and what do they do?

The EiU survey represents about 4 million existing entrepreneurs and 1 million potential entrepreneurs nationally. Precisely, the EiU survey yields an estimate of 3,700,357 current and 1,014,151 potential entrepreneurs, representing 31 percent of the working-age population and 35 percent of total employment.³ Current entrepreneurs are defined in the survey as those respondents who report to own or run “any small or large independent activity either producing, processing or selling agricultural or non-agricultural product (e.g. farm, bar or restaurant, street food vendor, retail store, wood products producer or seller...) [or] provides services (taxi services, barbers, lawyers, midwives, masons...)” Production for household consumption is not considered an entrepreneurial activity and the sample is limited to entrepreneurs whose main business has less than 15 employees.⁴ Potential entrepreneurs are defined as those people who are not running or owning a business but are “planning to start a new economic activity within 4 months (as owner or working on it independently).” To ensure accuracy of the classification, we define planning as “taking or seeking training for that purpose, preparing a business plan, on-the-job learning/apprenticeship, looking for financing.” Respondents who do not mention any of these actions are excluded from the sample. Among those identified as potential entrepreneurs, 79 percent are looking for financing, 49 percent for a venue, and 44 percent for the equipment and machinery.

The majority of entrepreneurs (both current and potential) are male, but potential entrepreneurs are more likely to be younger, more educated, and more concentrated in rural areas. Table 1 reports statistics on the demographics of the two groups based on the survey. As much as 75.5 percent of current entrepreneurs are older than 30⁵ (against 53.1 percent among potential entrepreneurs), raising the

³ Based on the Statistical Committee the number of economically active people in Uzbekistan is 14,980,700 at the end of 2021 and the number of employed people is 13,538,900.

⁴ In the raw sample of 422 entrepreneurs identified, there are 18 respondents whose only activity is destined to household consumption, and 14 respondents with 15 or more employees in their main business. The cutoff at 15 or above is chosen because of the small number of respondents in these groups and the qualitative differences of larger firms from smaller ones. In the sample, there is suggestive evidence of bunching in reported firm size at 10, 15, and 20.

⁵ The cutoff used to define youths in this analysis differs from the more standard cutoff at age 25 due to the small share of respondents less than 25 years old (16 percent of potential and 10 percent of current entrepreneurs), while a larger share is age 30 or less.

average age to 38.7 years; accordingly, current entrepreneurs live in larger households and are more likely to be married and have more children ages less than 14. There is a visible divide in the type of settlement where the two groups live: while most current entrepreneurs (62.4 percent) live in urban areas, the majority of potential entrepreneurs (54 percent) live in rural areas. While it is possible that current entrepreneurs are more likely to have migrated from rural to urban areas, there is slight evidence to the contrary, as the share of respondents who live in a different district from where they were born is in fact twice as high for potential than current entrepreneurs. All respondents have had some schooling (primary education at least), the highest level of education completed is upper secondary, predominantly vocational, with relatively more people completing general upper secondary school among current than potential entrepreneurs.

Table 1. Basic demographic characteristics of the sample: statistically significant difference between current and potential entrepreneurs

Variable	Potential entrepreneurs	Current entrepreneurs
% Female	0.41 (0.49)	0.44 (0.50)
Age (years)	35.10 (12.21)	38.68*** (12.07)
Older than 30	0.53 (0.50)	0.75*** (0.43)
Adult (age 25+)	0.85 (0.35)	0.90 (0.30)
Married	0.71 (0.46)	0.78 (0.41)
Household size	5.87 (2.05)	6.13 (2.73)
Has a child under 14 years of age	0.53 (0.50)	0.61 (0.49)
Number of children <14 years of age	1.05 (1.13)	1.28* (1.25)
Has a child under 5 years of age	0.41 (0.49)	0.41 (0.49)
Number of children <5 years of age	0.60 (0.84)	0.55 (0.74)
=1 if small city or city, 0 if village	0.46 (0.50)	0.62*** (0.48)
Village	0.54 (0.50)	0.38*** (0.48)
Small city	0.14 (0.34)	0.23** (0.42)

Variable	Potential entrepreneurs	Current entrepreneurs
City	0.32 (0.47)	0.39 (0.49)
Migrant	0.21 (0.41)	0.11*** (0.31)
Years of education	13.56 (3.99)	12.77** (3.49)
Education :Less than primary	0.00 (0.00)	0.00 (0.00)
Education: Primary completed	0.00 (0.00)	0.01 (0.09)
Education: Lower secondary completed	0.25 (0.44)	0.24 (0.43)
Education: General upper secondary completed	0.18 (0.39)	0.25 (0.44)
Education: Vocational upper secondary completed	0.39 (0.49)	0.33 (0.47)
Education: Some college	0.03 (0.17)	0.04 (0.19)
Education: Undergraduate studies completed	0.15 (0.36)	0.12 (0.33)
Education: Graduate studies completed	0.00 (0.00)	0.01 (0.07)
Total number of observations	115	394

Note: Standard errors in parentheses.

Asterisks represent the significance of the differences in mean between the two groups: ***p < 0.01, **p < 0.05, *p < 0.10.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Household income among entrepreneurs is generally low—especially among potential entrepreneurs—compared to the national median income. The average monthly income estimated in the survey is UZS 3.55 million for potential and UZS 3.85 million for current entrepreneurs, lower than the median income of UZS 4.5 million and about seven times the national poverty line.⁶ Households of potential entrepreneurs are not only more likely to have a lower income but are also significantly more likely to be food insecure. An overwhelming majority of respondents (83 percent of potential and 79 percent of current entrepreneurs) find that their household income is not sufficient to satisfy household needs, with the median respondents estimating their household income to be only half of the minimum required to satisfy their needs. One in three entrepreneurs is “worried about not having enough food to eat because of lack

⁶ The national median and mean incomes (UZS 5.19) are based on HBS 2021. The State Committee on Statistics has adopted in 2022 a new poverty line of UZS 498,000 per person per month following a basic needs approach as recommended and supported by the World Bank.

of money or other resources” at least once in the 30 days preceding the survey—the share is higher among potential entrepreneurs.

Social assistance transfers reach almost 40 percent of food insecure households. More than one-third of respondents report receiving social assistance transfers; the share is slightly higher (37.5 percent) among current than potential entrepreneurs (36.6 percent) despite their higher average income. However, social assistance seems to be better targeted based on food insecurity: 47.5 percent of food insecure potential entrepreneurs are covered by social assistance, while only 36 percent of food insecure current entrepreneurs are covered. However, among recipients of social assistance, the sum of transfer received by the household amounts to 8.5 percent of total household income.

Table 2. Welfare among respondents

Variable	Potential entrepreneurs	Current entrepreneurs
HH income	4.5e+06 (3.7e+06)	5.3e+06* (4.4e+06)
Log of income	15.10 (0.65)	15.18 (0.78)
Received any social assistance	0.37 (0.48)	0.37 (0.48)
HH social assistance received	1.1e+06 (3.2e+06)	1.4e+06 (3.8e+06)
Log of social assistance	13.07 (1.07)	13.11 (1.18)
Received any other transfer	0.10 (0.31)	0.04** (0.20)
HH transfers from others	5.6e+05 (3.2e+06)	5.5e+05 (6.0e+06)
Log of other transfers	12.78 (0.70)	12.71 (0.60)
Minimum HH income for basic needs (UZS)	1.0e+07 (1.4e+07)	1.0e+07 (1.3e+07)
Minimum HH income for basic needs (log UZS)	15.74 (0.82)	15.81 (0.72)
Ratio of household income over minimum necessary household income	0.79 (1.37)	0.76 (0.90)
Income below minimum necessary (1 = Yes; 0 = No)	0.83 (0.38)	0.79 (0.41)
Food insecurity last 30 days (1 = Yes; 0 = No)	0.36 (0.48)	0.24*** (0.43)
Asset index	-0.21	0.01**

Variable	Potential entrepreneurs	Current entrepreneurs
	(0.95)	(1.01)
Total number of observations	115	394

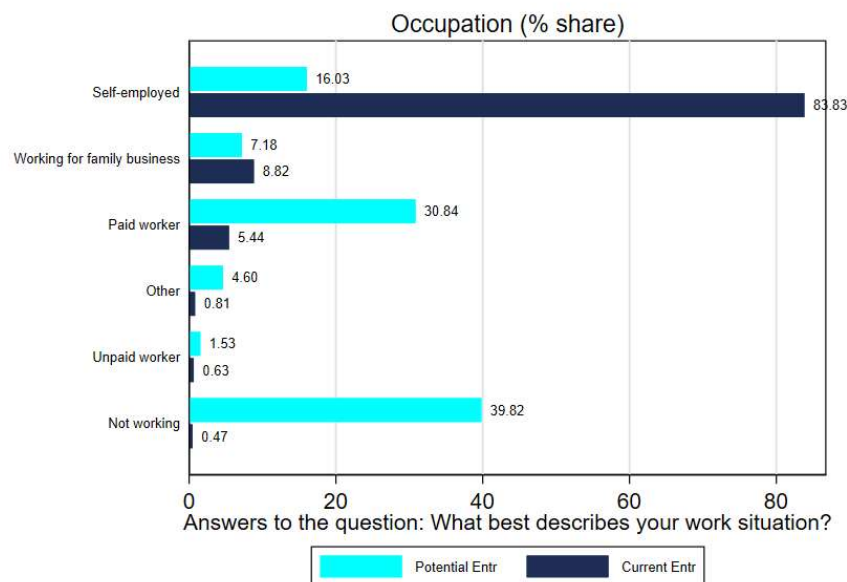
Note: HH = Household.

***p < 0.01, **p < 0.05, *p < 0.10.

Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Most potential entrepreneurs are not working and are looking for a job. When asked to describe their current work situation at best, 40 percent of potential entrepreneurs are not working while 31 percent are paid workers, about 12 percent are either unpaid or paid family workers, and a non-negligible 16 percent reports being self-employed. Since the two categories of entrepreneurs and potential entrepreneurs are mutually exclusive, this can be interpreted as either potential entrepreneurs having some professional activity that is not considered as self-employment or that these respondents are sufficiently invested in the process of starting a business that they already identify as entrepreneurs. Among current entrepreneurs, 84 percent report self-employment or entrepreneurship as their main activity; for the others, self-employment is not the main activity. When it comes to job search, 17 percent of potential entrepreneurs and 10.9 percent of current entrepreneurs report having looked for a job in the last 90 days.

Figure 1. Self-reported employment status



Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Entrepreneurs can be further classified as either ‘by necessity’ or ‘opportunity driven’, based on whether their entrepreneurial choice is driven by necessity or by choice. The polarization of entrepreneurs between these two categories is thought to determine the impact of business policies, as growth of some ‘aspirational’ entrepreneurs might drive the subsistence entrepreneurs out of self-employment and into wage employment, and—symmetrically—policies that help subsistence

entrepreneurs survive might limit the supply of labor and, with that, the growth of transformational entrepreneurs to the point of reaching a tension point between policies that improve the growth of ‘transformational businesses’ and those that will support the survival of ‘subsistence businesses’. This point is emphasized by (Schoar, 2009) who juxtaposes “those who become entrepreneurs as a means of providing subsistence income” to “those entrepreneurs who aim to create large, vibrant businesses that grow much beyond the scope of an individual’s subsistence needs and provide jobs and income for others.” This dichotomy is recurrent in the literature under different terminologies, such as the distinction between ‘opportunity’ and ‘necessity’ entrepreneurs (Reynolds et al., 2005). Regardless of whether economic activities are informal, some authors made the distinction based on business size and outcomes (Schoar, 2009); some on entry costs (Fields, 1990), differentiating between ‘restricted entry’ or self-employment activities that require either physical or human capital and ‘free entry’ activities that are easily accessible (no/low barriers to entry); some on self-reported motivation for business (Wennekers et al., 2005), and others on past labor history: (Fairlie & Fossen, 2018, for instance, classify as ‘necessity’ entrepreneurs all those who were not employed before their business activity).

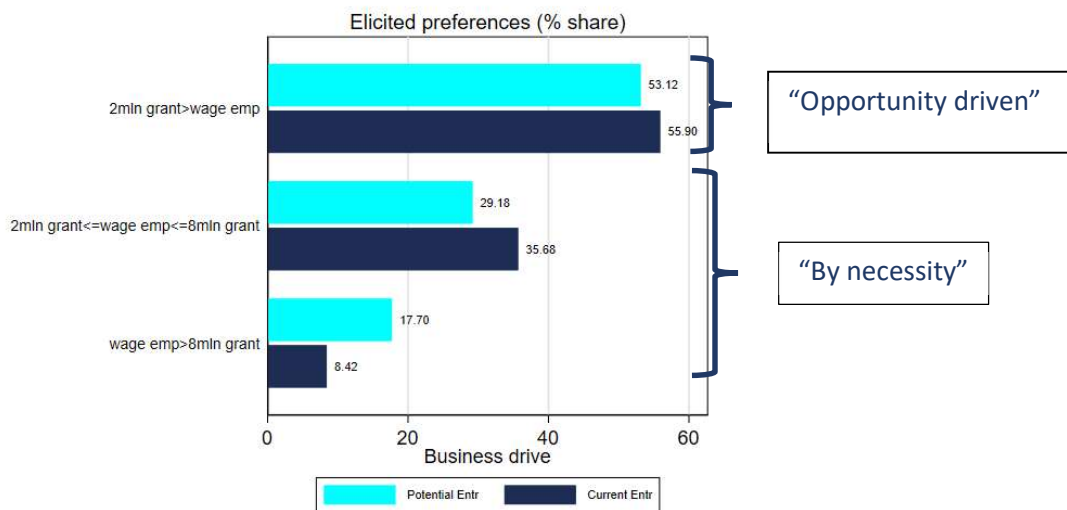
We define opportunity-driven entrepreneurs as those with strong revealed preferences for entrepreneurship over wage employment, and we operationalize this definition through a discrete choice experiment. Most definitions in the literature are based on a comparison between the interest in entrepreneurship, in relation to wage employment, and the availability of wage employment at the time of the choice. The definition is then used to predict policy responses. However, the operationalization of this construct was often inapplicable to the case of potential entrepreneurs (which are an object of our study) and has limited predictive capacities concerning the potential responses to business support policies. Even if someone was unemployed and became an entrepreneur due to the lack of other opportunities, this does not mean that in the future the same person will likely quit entrepreneurship if more job opportunities become available. To bring the classification closer to the needs of the policy makers, we define opportunity driven as those entrepreneurs who would strongly prefer to receive a business grant to continue their business project rather than being offered a wage contract. This definition is aimed to more easily identify those entrepreneurs who would respond to a positive economic shock by growing their business as opposed to those who would rather close their business if they had access to wage employment. To operationalize this definition, we use a discrete choice experiment where respondents make a hypothetical choice between a three-month wage contract and a grant to continue their current project of running or starting the business (see Annex 5 for details). Respondents who would choose the grant over the wage contract regardless of grant size (that is, even as the grant is as small as UZS 2 million) are classified as opportunity-driven entrepreneurs; all others are classified as necessity driven. The classification is binary for pure convenience: the discrete choice methodology would allow to create more granularity in obtaining an estimate of the exact indifference point between the business grant and wage employment. The size of the hypothetical business grant is varied in order to rank and classify respondents based on their preferences for entrepreneurship over wage employment and to estimate the size of the ‘equivalent grant’ that makes the respondent indifferent between entrepreneurship (plus grant) and wage employment. The size of the equivalent grant reveals the motivation for entrepreneurship: the smaller the grant desired by the respondent to choose entrepreneurship over wage employment, the higher the motivation to either start or grow a business.

Based on our methodology, over half of respondents can be defined as ‘opportunity driven’ meaning they would prefer a small size grant to start and grow a business than working for others. The share of

respondents with high preference for a small size business grant over secure wage employment is 53 percent among potential entrepreneurs and 55.9 percent among currently active entrepreneurs. The remaining 47 percent and 44 percent, respectively, are classified in our sample as ‘by necessity’ (Figure 2). Within entrepreneurs by necessity at the opposite end of the spectrum, 8.4 percent of current entrepreneurs and 17.7 percent of potential entrepreneurs would prefer wage employment, even to a large business grant of UZS 8 million. For reference, personal net income from the main business is less than UZS 1.5 million per month for 45 percent of respondents and is less than UZS 5 million for 88 percent of respondents.

Opportunity-driven entrepreneurs reveal stronger preferences for their activity across other dimensions. The definition of opportunity-driven entrepreneurs used in the study has a strong correlation with other indicators of preference for entrepreneurship. For instance, when asked about their dream job, 25.6 percent of opportunity-driven entrepreneurs report anything different from entrepreneurship as their dream job (that is, they answer that their dream job is neither ‘my current job’ nor ‘starting a new business’) compared to 38.7 percent of necessity-driven entrepreneurs. Similarly, only 8.2 percent of opportunity-driven entrepreneurs are looking for an employee job compared to 14.4 percent of necessity-driven entrepreneurs.

Figure 2. Classification of entrepreneurs based on their preferences for business grant as opposed to hired employment



Notes: The bars represent the share of entrepreneurs revealing preferences for business grant to start up a business as opposed to a hired employment opportunity.

Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Opportunity-driven entrepreneurs are more likely to be women, younger, more educated, and with small children not in school age. Among existing entrepreneurs, those more motivated (‘opportunity driven’) have on average one extra year of schooling and are more likely to have attained vocational education and even tertiary education than entrepreneurs ‘by necessity’. Half of the existing entrepreneurs who are more motivated are female with higher number of small children and children in school age; opportunity-driven entrepreneurs are significantly more likely to have migrated from their

hometown. To the contrary, the majority of existing entrepreneurs by necessity are men, older, with secondary general education as their higher attainment, and more likely to be from rural areas. There are no significant differences in terms of income between existing entrepreneurs who are more and less motivated ('opportunity driven' versus 'by necessity'); however, a higher share of 'opportunity-driven' entrepreneurs receive social assistance benefits, perhaps due to demographic factors and the larger number of children (see Table 3).

Similarly, potential entrepreneurs who are more likely to be 'opportunity driven' are younger and more educated but are unmarried, less likely to have children, and more commonly found in cities. Among potential entrepreneurs, those driven by necessity are older (5.1 years older than the opportunity driven) and more likely to be married and to have children. While potential entrepreneurs who are more motivated to start a business do not differ from potential entrepreneurs by necessity in terms of income, they are less likely to depend on public social assistance support.

Table 3. Demographics of the sample, by opportunity versus necessity

Variable	Current entrepreneurs		Potential entrepreneurs	
	Subsistence	Opportunity	Subsistence	Opportunity
% Female	0.37 (0.48)	0.50*** (0.50)	0.41 (0.50)	0.41 (0.50)
Age (years)	39.73 (12.51)	37.86 (11.67)	37.82 (13.49)	32.70** (10.50)
Older than 30	0.78 (0.42)	0.74 (0.44)	0.63 (0.49)	0.45* (0.50)
Adult (age 25+)	0.90 (0.30)	0.90 (0.30)	0.91 (0.29)	0.80 (0.40)
Married	0.78 (0.41)	0.78 (0.41)	0.86 (0.35)	0.58*** (0.50)
Household size	6.48 (2.75)	5.85** (2.69)	5.59 (1.51)	6.11 (2.42)
Has a child under 14 years of age	0.57 (0.50)	0.64 (0.48)	0.62 (0.49)	0.45* (0.50)
Number of children <14 years of age	1.20 (1.28)	1.34 (1.22)	1.29 (1.17)	0.83** (1.07)
Has a child under 5 years of age	0.36 (0.48)	0.45* (0.50)	0.52 (0.50)	0.31** (0.46)
Number of children <5 years of age	0.52 (0.76)	0.58 (0.73)	0.83 (0.97)	0.39*** (0.65)
= 1 if small city or city, 0 if village	0.65 (0.48)	0.61 (0.49)	0.33 (0.48)	0.57** (0.50)
Village	0.35 (0.48)	0.39 (0.49)	0.67 (0.48)	0.43** (0.50)
Small city	0.23 (0.42)	0.23 (0.42)	0.19 (0.40)	0.09 (0.29)
City	0.41	0.38	0.14	0.48***

Variable	Current entrepreneurs		Potential entrepreneurs	
	Subsistence	Opportunity	Subsistence	Opportunity
	(0.49)	(0.49)	(0.35)	(0.50)
Migrant	0.07	0.14**	0.25	0.18
	(0.26)	(0.35)	(0.43)	(0.38)
Years of education	12.50	12.97	13.31	13.79
	(3.40)	(3.55)	(3.98)	(4.02)
Education: Less than primary	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Education: Primary completed	0.01	0.00	0.00	0.00
	(0.11)	(0.07)	(0.00)	(0.00)
Education: Lower secondary completed	0.24	0.24	0.37	0.15***
	(0.43)	(0.43)	(0.49)	(0.36)
Education: General upper secondary completed	0.35	0.18***	0.13	0.23
	(0.48)	(0.38)	(0.33)	(0.42)
Education: Vocational upper secondary completed	0.26	0.39***	0.37	0.41
	(0.44)	(0.49)	(0.49)	(0.49)
Education: Some college	0.05	0.03	0.02	0.04
	(0.22)	(0.18)	(0.13)	(0.20)
Education: Undergraduate studies completed	0.08	0.15**	0.11	0.18
	(0.28)	(0.36)	(0.32)	(0.38)
Education: Graduate studies completed	0.00	0.01	0.00	0.00
	(0.07)	(0.08)	(0.00)	(0.00)
Total number of observations	173	221	51	64

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Business outcomes among existing entrepreneurs

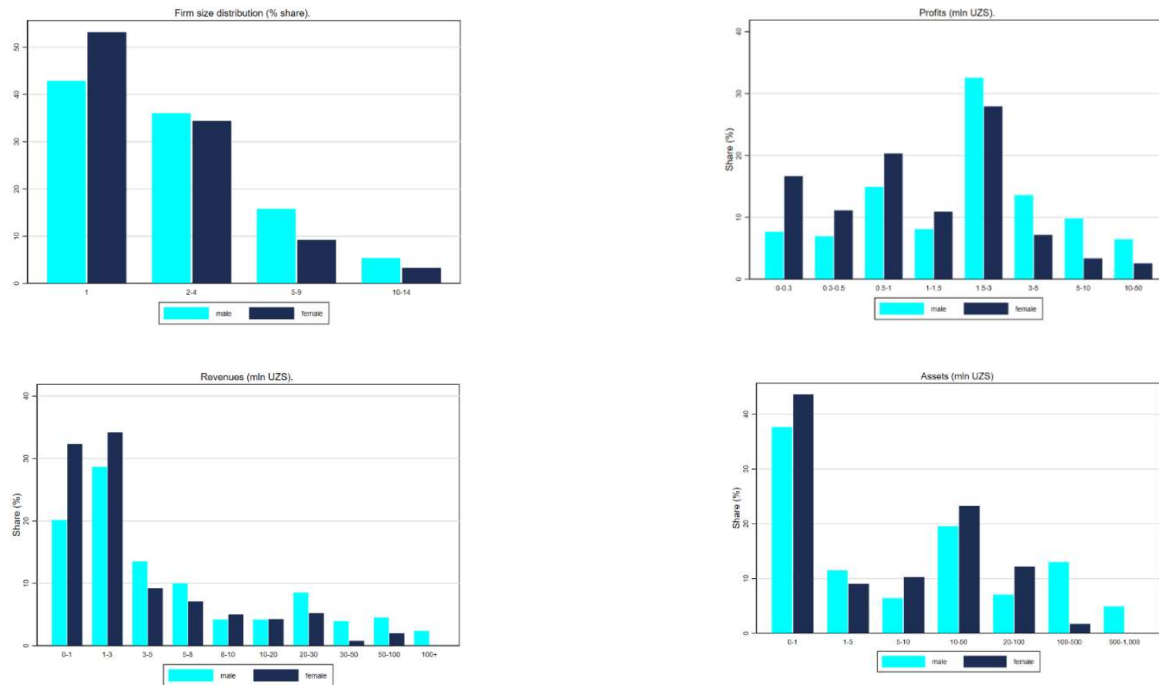
Half of the sampled current entrepreneurs make less than UZS 3 million per month and operate without capital. About 5 percent of the respondents have made zero revenues and three-quarters of respondents have profits between UZS 460,00 and UZS 6.6 million on a monthly basis. One in six respondents makes less than UZS 460,000 from the main business and over one in five respondents make less than UZS 770,000 combining all business income. The distribution of assets is even more skewed, with over one in three respondents having no assets at all, while nearly half of the entrepreneurs have assets less than UZS 3.2 million.

Business outcomes are significantly worse for women, necessity-driven, and rural entrepreneurs.

Female entrepreneurs face a similar imbalance and have significantly smaller business sizes (Figure 3). Similarly, rural entrepreneurs have consistently lower profits and revenues from the main business and

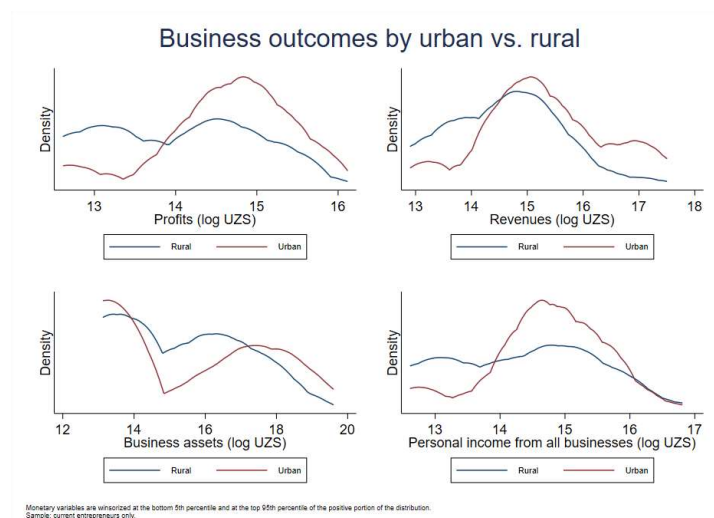
from all businesses combined (Figure 4). Necessity-driven entrepreneurs are twice as likely to have near-zero profits, 48 percent more likely to have near-zero sales, and 19 percent more likely to have near-zero business assets. Multivariate analysis (Annex 1, Table 1.11) confirms these gaps when controlling for other relevant factors.

Figure 3. Business outcomes by gender



Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Figure 4. Business outcomes by location



Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Current entrepreneurs report to be larger than they were before the COVID-19 pandemics. Entrepreneurs who have been active in 2019 through 2022, on average, employ 0.76 workers more than they did in 2019. It has to be noted that these data can be the result of survival bias: those people who were in business in 2019 but are not active anymore were not interviewed. It is to be noted that growth was especially concentrated in larger businesses: of those that used to hire at least one employee before the pandemic, 9.3 percent decreased their workforce while 34.7 percent increased it; by contrast, only 16.8 percent of those businesses that did not hire anyone increased their workforce.

Business practices among current entrepreneurs

The adoption of some business practices is generally associated with better firm performance among micro-entrepreneurs. McKenzie & Woodruff (2016) developed 26 questions that measure business practices in marketing, stock-keeping, recordkeeping, and financial planning. They find that these self-reported measures are highly accurate and are a strong predictor of business performance for micro-enterprises across several countries. Different types of practices are more relevant for different types of entrepreneurs: Anderson et al. (2018) compared the outcomes of a training on marketing skills and a training on financial literacy, finding that the latter mostly benefits established businesses. In this study, we focus on marketing and customer service (MCS), information and opportunity seeking (IOS), recordkeeping and financial management (RKFM), and operations and performance management (OPM). The indicators of these indexes are adapted from Campos et al. (2017) (see Annex 5 for further details). In our sample of current entrepreneurs, IOS and OPM are statistically more correlated with alternative indicators of business performance than MCS and RKFM indicators (Table 4).

Table 4. Correlations of business practices with business outcomes

Regressor	(1) Profit (ln)	(2) Revenues (ln)	(3) Business assets (ln)	(4) Number of workers	(5) Business income (ln)	(6) Hours worked per month
MCS (0-1)	0.0143 (0.306)	-0.487 (0.485)	-0.931 (0.751)	0.140 (0.741)	-0.659** (0.325)	6.722 (35.31)
IOS (z-score)	0.0936* (0.0543)	0.112 (0.0782)	0.427*** (0.122)	0.0927 (0.132)	0.0469 (0.0571)	-0.0990 (6.245)
RKFM (z-score)	-0.0121 (0.0560)	-0.0891 (0.0774)	-0.145 (0.126)	0.145 (0.135)	0.0118 (0.0580)	3.271 (6.381)
OPM (z-score)	-0.173*** (0.0523)	-0.262*** (0.0727)	-0.289** (0.117)	-0.257** (0.127)	-0.214*** (0.0547)	-14.95** (5.994)

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Controls for gender, urbanization, age (dummy for being 30+), subsistence, educational attainment.

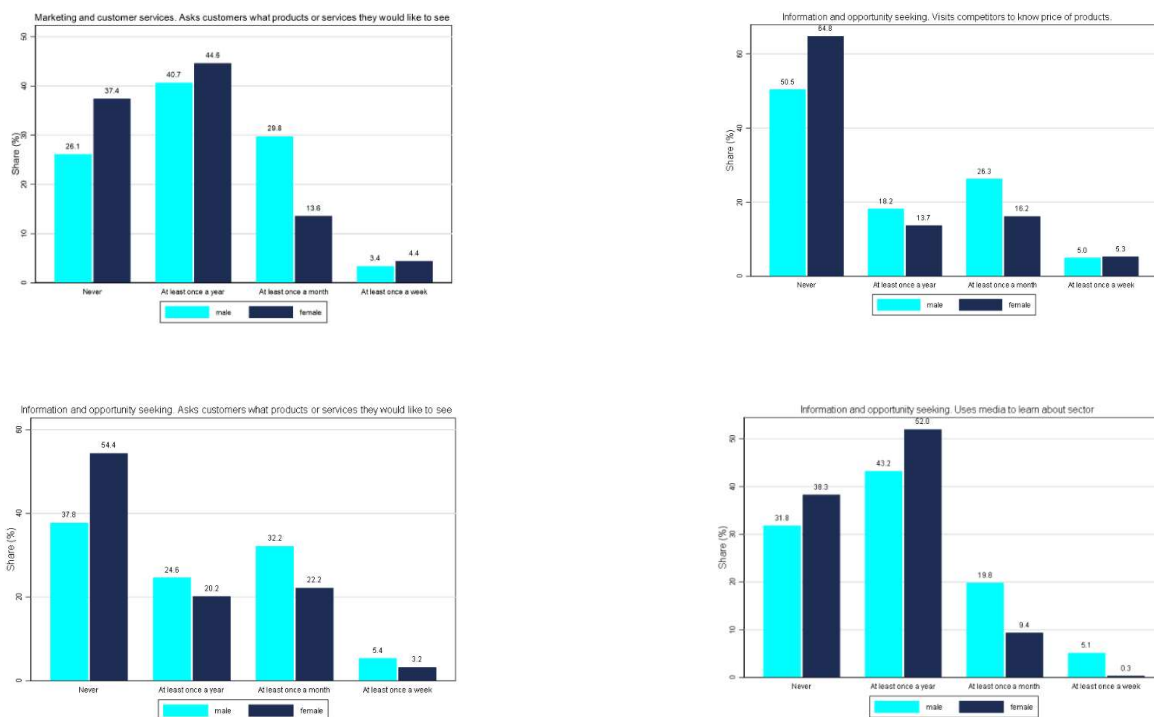
Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

There are strong gaps in the adoption of relevant business practices such as IOS and MCS, which are also strong correlates of business outcomes. MCS practices are somewhat limited, with 57 percent of entrepreneurs asking customers for input on products and services less than once a week. IOS practices are even less common: 56 percent of entrepreneurs report “never visiting competitors to know price or products,” 44.8 percent report “never discussing business ideas with friends, consultants or other

entrepreneurs,” and 34.96 percent report “never using internet, books, magazines or newspapers to learn new things in the sector” (Figure 5). On the other hand, 48.0 percent of respondents do report using the internet or other sources at least once a week to stay up to date with developments in the sector and 22.4 percent report discussing business ideas at least once a week. These variables are strongly correlated to business outcomes (Table 1.6 in Annex 1). A one standard deviation increase in the IOS index is associated with a 25 percent increase in revenues and an increase in firm size by 0.4 workers (a 13 percent increase over the unconditional mean of 3.0 workers per firm).

Women entrepreneurs, necessity-driven entrepreneurs, and entrepreneurs from large cities are far less likely to follow best practices in IOS. Women have worse IOS scores by 34 percent of a standard deviation (Table 6). Necessity-driven entrepreneurs have a gap of similar size (21 percent of a standard deviation), while people living in large cities have an impressive 49 percent gap compared to rural entrepreneurs. The latter result is all the more surprising as urban density should facilitate networking, observation of competitors’ prices, and access to information. It is to be seen whether there is less demand for information in cities or whether there are more pressing time constraints, for instance, due to the need to drive for work. Furthermore, women are also less likely to follow MCS best practices: only 18 percent of women ask customers what products and services they would like to see compared to 33.2 percent of men (Figure 5).

Figure 5. MCS and IOS by gender



Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Similarly, RKF practices are weaker among necessity-driven entrepreneurs and those working in large cities. About 83.7 percent of entrepreneurs have a written budget, 68.9 percent keep business and personal money separated, and 30.8 percent keep accounting books—a stronger requirement. Overall, the aggregate RKF index is slightly smaller among women, by 7 percent of a standard deviation, and

significantly smaller among those living in larger cities, by 36 percent of a standard deviation (Annex 1, Table 1.5). However, in this sample, higher values of this indicator are weakly correlated with lower profits and strongly, inversely correlated with firm size: a one standard deviation increase in RKFM practices is associated with a 0.34 decrease in the number of workers (Annex 1, Table 1.6).

OPM practices are lacking but are also *negatively* correlated with profits. Only 47 percent of respondents set revenues and sales goals, only 29.4 percent calculate profits and losses, and only 12.4 percent write a business plan. However, these variables are negatively correlated with business profits: probably, entrepreneurs only start adopting these behaviors when their businesses are less successful. The negative correlation also remains while controlling for the sector of activity.

Table 5. Correlates of business practices (current entrepreneurs only)

Covariate	(1)	(2)	(3)	(4)
	MCS (0-1)	IOS (z-score)	RKFM (z-score)	OPM (z-score)
Female (0-1)	0.0157 (0.0223)	-0.344*** (0.103)	-0.208** (0.100)	0.00317 (0.106)
Small city (0-1)	0.0683** (0.0290)	0.0932 (0.131)	-0.163 (0.128)	-0.176 (0.136)
City (0-1)	0.0283 (0.0252)	-0.333*** (0.114)	-0.235** (0.112)	-0.0583 (0.118)
Age 30+ (0-1)	0.0490* (0.0263)	0.0426 (0.117)	0.0470 (0.115)	-0.0711 (0.121)
Necessity entrepreneurs	0.00291 (0.0231)	-0.00865 (0.103)	-0.103 (0.101)	0.272** (0.107)
Education: Lower secondary	0.0470 (0.119)	0.0225 (0.508)	-0.211 (0.497)	0.406 (0.525)
Education: General secondary	0.0835 (0.119)	-0.280 (0.507)	-0.235 (0.496)	0.302 (0.524)
Education: Vocational secondary	0.0814 (0.119)	0.145 (0.507)	-0.356 (0.496)	0.0822 (0.524)
Education: Some undergraduate	0.0317 (0.129)	0.414 (0.561)	-0.171 (0.549)	-0.217 (0.580)
Education: College	0.0170 (0.121)	0.475 (0.519)	-0.122 (0.508)	0.0690 (0.536)
Education: Postgraduate	0.00512 (0.310)	0.751 (0.830)	0.725 (0.812)	-0.0691 (0.858)
Constant	-0.0981 (0.123)	0.144 (0.528)	0.572 (0.516)	-0.178 (0.545)
Observations	308	380	380	380
R-squared	0.038	0.131	0.038	0.055

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Skills

The level of basic IT and socioemotional skills is generally lower among current entrepreneurs ‘by necessity’ and for females. In this study, we make an attempt to measure basic IT skills and to adapt three types of socioemotional skills that have been identified in psychological and economic research: personal initiative⁷ (PI), generalized self-efficacy⁸ (GSE), and locus of control⁹ (LOC) to measure socioemotional skills. These indexes measure separate but related aspects of people’s behavior (see Annex 5 for a detailed explanation of how they are defined and adapted for this study): personal initiative is best summarized as a proactive attitude which is goal oriented, resilient to setbacks, and has a long-term focus. Generalized self-efficacy is considered one of the two components of self-esteem (the other being self-worth) and involves the belief in one’s capacity to channel the resources needed to control event in one’s life. Locus of control is a personality trait that represents the extent to which individuals have control over their environments.

Table 6. Correlates of skills among current entrepreneurs

Covariate	(1)	(2)	(3)	(4)
	IT (z-score)	PI (z-score)	GSE (z-score)	LOC (z-score)
Female (0-1)	-0.300*** (0.0934)	-0.0755 (0.107)	-0.0741 (0.103)	0.107 (0.106)
Small city (0-1)	-0.000323 (0.120)	-0.0792 (0.137)	-0.148 (0.132)	-0.249* (0.135)
City (0-1)	0.209** (0.104)	-0.402*** (0.119)	-0.416*** (0.115)	-0.422*** (0.117)
Age 30+ (0-1)	-0.376*** (0.107)	0.291** (0.123)	0.0798 (0.118)	0.167 (0.121)
Necessity entrepreneurs	-0.263*** (0.0939)	-0.0183 (0.108)	-0.0362 (0.104)	0.107 (0.106)
Education: Lower secondary	0.377 (0.463)	0.294 (0.531)	0.764 (0.511)	0.667 (0.523)
Education: General secondary	0.252 (0.462)	0.558 (0.530)	0.975* (0.511)	0.756 (0.522)
Education: Vocational secondary	0.672 (0.461)	0.546 (0.530)	1.041** (0.510)	0.784 (0.521)
Education: Some undergraduate	1.018** (0.511)	0.473 (0.586)	1.177** (0.564)	0.744 (0.577)
Education: College	1.413*** (0.473)	0.420 (0.543)	1.162** (0.523)	1.052** (0.534)
Education: Postgraduate	1.254* (0.756)	-0.318 (0.868)	0.430 (0.836)	0.205 (0.854)

⁷Frese et al. (1997).

⁸Feldman et al. (2018).

⁹Furnham (1986)

Covariate	(1)	(2)	(3)	(4)
	IT (z-score)	PI (z-score)	GSE (z-score)	LOC (z-score)
Constant	-0.198 (0.480)	-0.450 (0.551)	-0.741 (0.531)	-0.718 (0.543)
Observations	380	380	380	380
R-squared	0.243	0.074	0.075	0.064

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

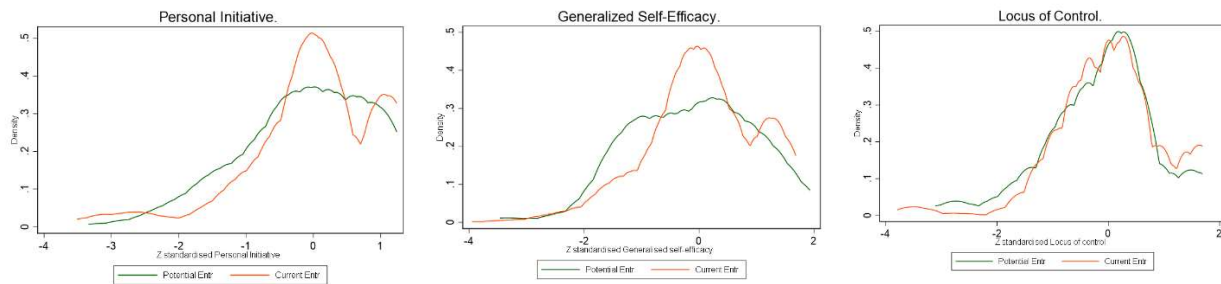
Basic IT skills are limited, in particular among rural women and older entrepreneurs by necessity, and are strong correlates of firm performance. Only 26 percent of respondents can confidently use Excel, 26.1 percent can use Word, 14.7 percent can use PowerPoint: overall, only 31.3 percent can use at least one of those. Usage of one of these has a weak negative correlation with revenue and a significantly positive correlation with firm size: entrepreneurs who use one of those types of software have on average 1.2 more employees. Respondents are also severely limited in their capacity to send and receive emails (47.3 percent cannot send and receive emails), attach documents (59.3 percent cannot do it), and download files from emails or websites (52.9 percent cannot do it). On the other hand, 65.5 percent can search the internet for news or information on what they need. An index aggregating respondents' digital capabilities reveals strong gaps by gender, areas of residence, age, and subsistence: women, rural respondents, older entrepreneurs, and subsistence entrepreneurs have significantly worse IT skills (Figure 6). At the same time, these skills are strongly correlated to business size, revenues, and household income, even when controlling for other demographic factors (Table 7).

There is growing interest in the relevance of socioemotional skills as determinants of business success. It is now well established that a correlation between psychological traits and attitudes and entrepreneurial activity is present among economists and psychologists alike (Frese & Gielnik, 2023). Over the last decade, the development and testing of trainings to improve interpersonal skills has allowed economists to test the causal impact of these skills on business outcomes, with overall strong effects in the short term and less clear-cut results on long-term effects, with an average impact of 14 percent on profits and 10 percent on sales (Mckenzie et al., 2021). Although different training programs vary in quality of delivery and design, the fact that some of those programs improved business outcomes is a testament to a causal impact of personality attributes and socioemotional skills on business performance.

Socioemotional skills are lacking among a large share of respondents and are high for a significant minority of current entrepreneurs. Figure 6 reports the distribution of PI, GSE, and LOC expressed in standard deviations from the mean. Among current entrepreneurs, the skills distribution is bimodal, reflecting the existence of underlying differences in interpersonal skills and personality traits. Across all groups, there is a sizeable share of people with significantly poorer outcomes than average (below 0) and a sizeable minority with high outcomes. Among potential entrepreneurs, the distribution is much more

uniform and spread out: an indication that these respondents do not have a correct understanding of their own skills or that they have not been able to develop them through learning by doing.¹⁰

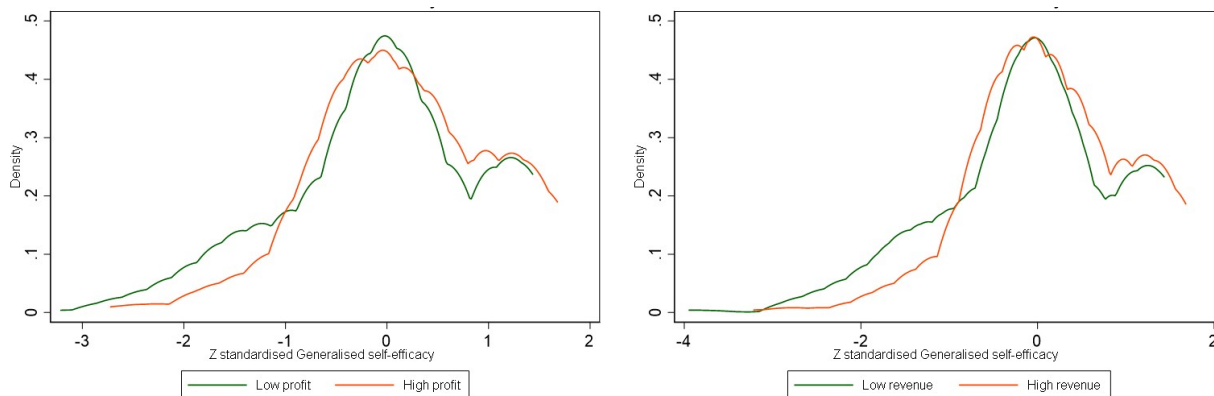
Figure 6. Socioemotional skills distribution



Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Among current entrepreneurs, GSE is most strongly related to profits and revenues. Current entrepreneurs with better GSE have higher profits and revenues (Figure 7): even controlling for other individual characteristics, one standard deviation increase in GSE is correlated to a 19 percent increase in business revenues (Table 7. Correlation between skills and business outcomes), a 7 percent increase in aggregate business income, and a 12-hour increase in monthly hours worked. Similarly, one standard deviation increase in LOC is correlated to a 12 percent increase in sales (although not statistically significant) and a significant 10 percent increase in aggregate business income. Incidentally, the fact that correlation with profits from the main business is less strong is an indication that respondents with better skills are able to run more than one business and are better able to reap the benefits of diversification.

Figure 7. GSE by business outcomes, among current entrepreneurs



Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Socioemotional skills are particularly low among current entrepreneurs living in large cities and those under the age of 30. Among currently active entrepreneurs, those from large cities have worse PI, GSE, and LOC than respondents from rural areas, in a measure of 40 to 42 percent of a standard deviation, controlling for other relevant covariates (Table 6). Entrepreneurs from small cities fare worse than those

¹⁰ It could be the case that selection is responsible for the differential distribution, but two observations lead to ruling out this hypothesis: first, selection should likely operate in a monotonic fashion and would thus be insufficient to create a bimodal distribution; second, the distribution of LOC, which is a personality trait and less likely to change, remains similar between the two groups: it is hard to imagine selection on business operating through PI and GSE but not differentiating entrepreneurs by their LOC.

from rural areas, although not at a significant level. Younger entrepreneurs have worse socioemotional skills than older entrepreneurs; however, young potential entrepreneurs have far better socioemotional skills both when compared to older potential entrepreneurs and to those of same age who are currently active: that is, among the youth, those with better skills are in the process of starting a business but those with an active business have worse skills.

Table 7. Correlation between skills and business outcomes

Regressor	(1)	(2)	(3)	(4)	(5)	(6)
	Profit (ln)	Revenues (ln)	Business assets (ln)	Number of workers	Business income (ln)	Hours worked per month (ln)
IT	0.0798	0.0953	0.412***	0.313**	-0.00469	-0.578
(z-score)	(0.0602)	(0.0861)	(0.136)	(0.144)	(0.0628)	(6.859)
PI	0.00829	-0.0376	0.0642	0.419***	0.00700	-4.910
(z-score)	(0.0528)	(0.0740)	(0.118)	(0.124)	(0.0544)	(5.972)
GSE	0.101*	0.170**	0.244**	0.279**	0.116**	15.09**
(z-score)	(0.0557)	(0.0777)	(0.122)	(0.130)	(0.0570)	(6.156)
LOC	0.0859	0.104	0.307**	0.412***	0.0876	8.883
(z-score)	(0.0531)	(0.0764)	(0.121)	(0.126)	(0.0556)	(6.054)

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Controls for gender, urbanization, age (dummy for being 30+), subsistence, educational attainment.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

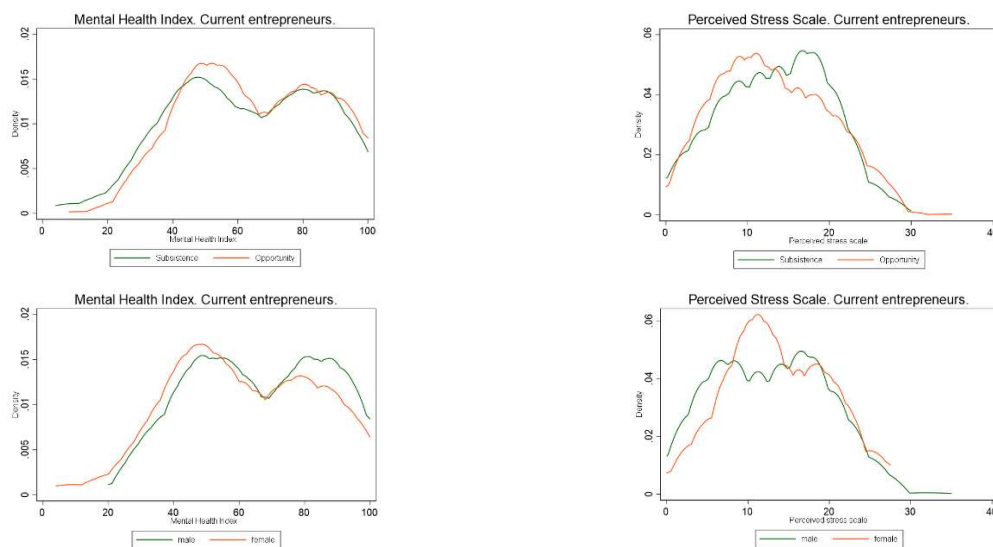
Mental health

Poor mental health is a significant impairment to well-being and business growth. Over half (53 percent) of the respondents suffer from moderate to high perceived stress, measured as a score above 14 in the Perceived Stress Scale. Over one-quarter (27.9 percent) of the respondents have poor mental health, as proxied by a mental health index (MHI-5) score below 52—the cutoff threshold used in the psychiatric literature to screen for poor mental health (Bültmann et al., 2006). Respondents are aware of the challenges posed by mental health: nearly half of the sample affirms that the current psychological and emotional state has an impact on business outcomes, which is negative in 28.7 percent of cases and positive in 20.6 percent of cases. The negative impact is more commonly reported by potential entrepreneurs (33.8 percent) than by current entrepreneurs (27.3 percent). Regression analysis (Table 9) shows that there is a negative correlation between mental health and time spent working and revenues, although the correlation with net profits is weaker. Of course, this analysis is purely correlational and has no pretense to claim a causal relation and the awareness that the relation is complex and can be mediated by several factors (Chatterji et al., 2011).

Among current entrepreneurs, mental health is especially worse among women, youths, and urban respondents. Holding other factors constant, we find that some types of entrepreneurs have significant struggles with mental health (Table 8). In particular, female entrepreneurs have significantly higher levels of stress (16 percent of a standard deviation) and worse levels of the MHI-5 index (20 percent of a standard deviation) despite reporting better satisfaction with their current life (as proxied by the ‘ladder of life’ index, whose construction is detailed in Annex 5). Urban entrepreneurs have higher levels of stress than entrepreneurs in rural areas: 39 percent of a standard deviation for entrepreneurs in small cities and 49

percent for those in large cities. Entrepreneurs by necessity do not have significantly larger levels of stress but have a worse MHI-5 index (17 percent of a standard deviation).

Figure 8. Mental health among current entrepreneurs



Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Table 8. Correlates of mental health

Covariate	(1) Good PSS (z-score)	(2) Good MHI (z-score)
Female (0-1)	-0.114 (0.0968)	-0.204* (0.105)
Small city (0-1)	-0.428*** (0.124)	-0.0637 (0.134)
City (0-1)	-0.500*** (0.108)	-0.372*** (0.116)
Age 30+ (0-1)	0.199* (0.111)	0.230* (0.120)
Necessity entrepreneurs	0.0116 (0.0973)	-0.0995 (0.105)
Education: Lower secondary	0.672 (0.479)	0.385 (0.518)
Education: General secondary	0.932* (0.479)	0.422 (0.518)
Education: Vocational secondary	0.996** (0.478)	0.682 (0.517)
Education: Some undergraduate	1.226** (0.529)	1.075* (0.572)
Education: College	0.915* (0.490)	0.696 (0.530)
Education: Postgraduate	1.655** (0.783)	1.100 (0.847)

Covariate	(1) Good PSS (z-score)	(2) Good MHI (z-score)
Constant	-0.600 (0.498)	-0.376 (0.539)
Observations	380	380
R-squared	0.115	0.095

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 9. Correlation between mental health and business outcomes

Regressor	(1) Profit (ln)	(2) Revenues (ln)	(3) Business assets (ln)	(4) Number of workers	(5) Business income (ln)	(6) Hours worked per month
Good PSS (z-score)	0.0502 (0.0585)	0.0998 (0.0812)	0.230* (0.130)	0.0939 (0.140)	0.0984 (0.0606)	14.61** (6.576)
Good MHI (z-score)	0.0701 (0.0535)	0.160** (0.0742)	0.0956 (0.120)	-0.126 (0.129)	0.122** (0.0557)	-4.829 (6.115)

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Controls for gender, urbanization, age (dummy for being 30+), subsistence, educational attainment.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

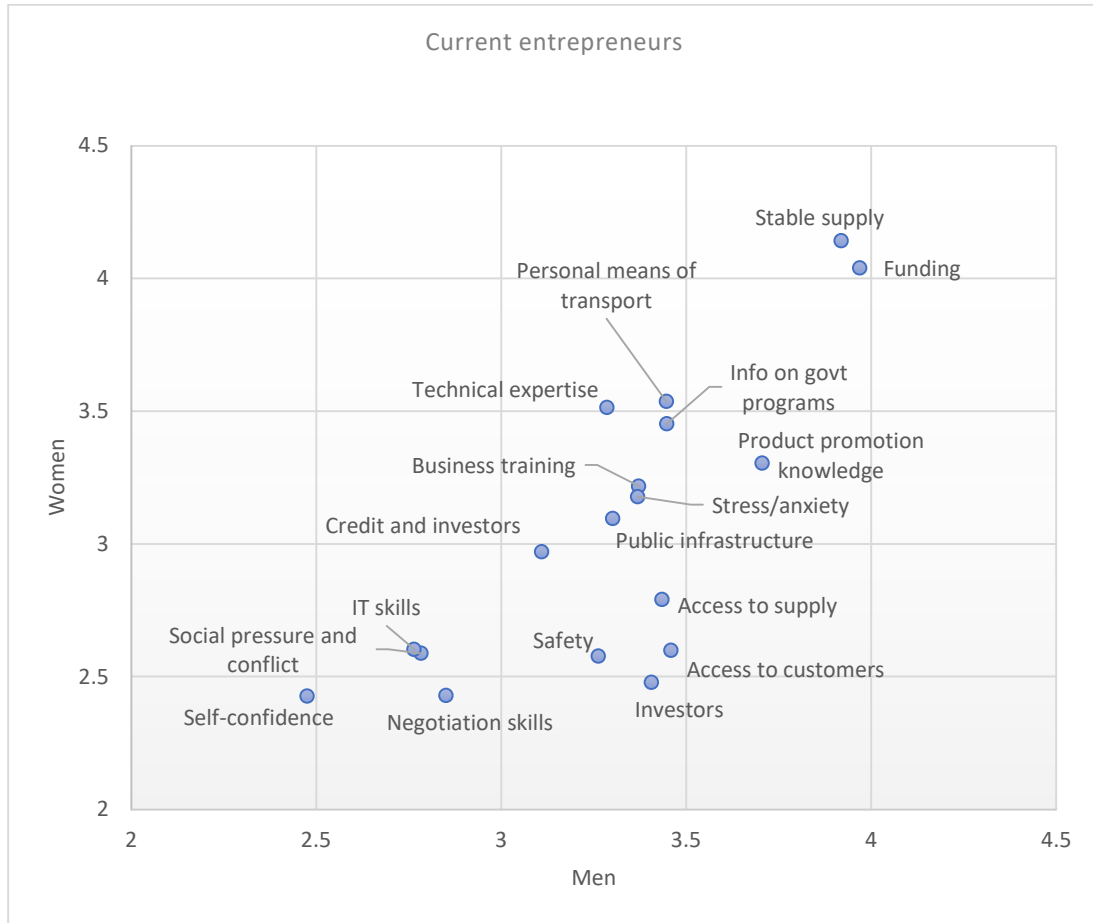
Perceived constraints to start and grow a business

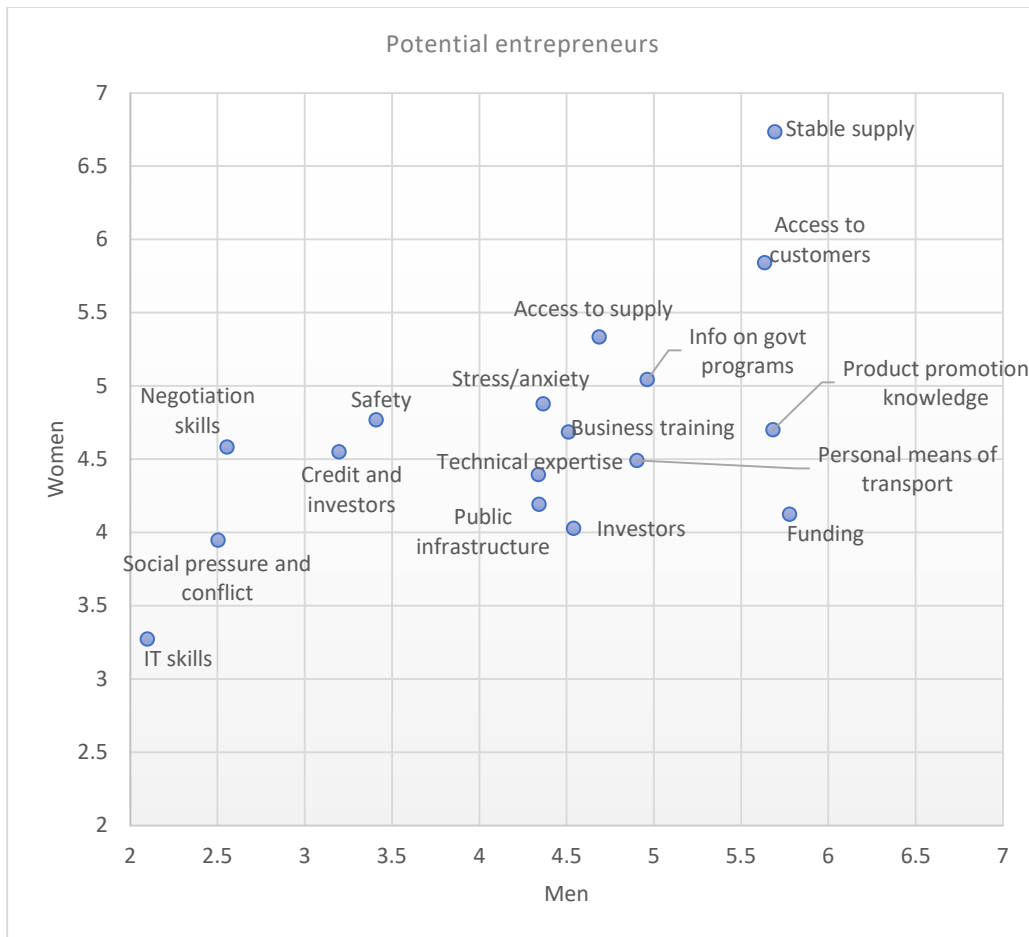
Respondents were asked to rate the relevance of 18 constraints (19 for women) to the performance of their business or their capacity to start a business. The type of constraints considered by the respondents include financial constraint, information about business opportunities, technical skills, socioemotional skills, and gender prejudice, among others (see Figure 9). The absolute value reported by respondents, as well as the relative rating, allows to understand the intensity of each constraint and the overall extent to which entrepreneurs or potential entrepreneurs feel limited by the constraints reported. Comparing these measures across the type of respondent and across gender can yield different insights into the perceived needs and also the selectivity of business entrance and survival. Table 10, for instance, shows that current entrepreneurs are overall less constrained than potential entrepreneurs: this might be evidence that current entrepreneurs have survived but it also reveals how much more difficult it is to start a business, especially for aspiring entrepreneurs who are younger and less experienced, than to expand it. A concurrent explanation is that the strength of constraints is assessed against the desired outcome: current entrepreneurs might be potentially more satisfied with their business or simply less hopeful in their capacity to further improve its productivity.

Lack of finance and lack of stable supply are rated as the most severe constraints to both starting and growing a business, while lack of information on government programs is binding for potential

entrepreneurs (especially men) and lack of business skills becomes more binding once the business is established. Lack of self-confidence and lack of social pressure are rated the lowest by both potential and current entrepreneurs—despite low indexes, as shown in the previous section. As expected, lack of information and training on how to start a business is rated high by potential entrepreneurs, while lack of technical expertise and knowledge about government entrepreneurship support programs is reported as a constraint by existing entrepreneurs.

Figure 9. Rating to the relevance of constraints (0–10 scale) for existing and potential entrepreneurs, by gender





Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Lack of public infrastructure, albeit important, is not the most relevant constraint. The KIIs conducted for this study revealed a general belief, in the high-level program management, that entrepreneurship support initiative might be ineffective until macro-level issues are sorted. There are, indeed, strong concerns that entrepreneurship support might be useless if infrastructure such as irrigation or internet landlines are not well-developed. The survey shows that these concerns are relevant and more so among those who already run an activity than among those who have not started yet (of all 19 constraints that were analyzed, this is the only one which is rated more highly by entrepreneurs than by potential entrepreneurs). However, even among entrepreneurs this ranks lower than funding, training on product promotion, or information on government programs and is just as high a concern as stress and anxiety.

Among entrepreneurs, those in small cities are more constrained to grow in absolute terms: in particular they report a higher need to improve their IT skills, lack of stable supply, and low managerial capacity. Comparing the absolute value of self-reported severity of constraints among entrepreneurs in different areas reveals higher degrees of concern among entrepreneurs in small cities, in particular for IT skills, access to customers, access to a stable supply, and information on government support programs (Table 11). Among potential entrepreneurs, instead, the absolute intensity of constraints is the highest in large cities, with high values attributed to funding by respondents.

A personal means of transport appears to be absolutely necessary to starting out a business, especially in small cities. This can be inferred from the large difference between the absolute value attributed to the constraint by potential and current entrepreneurs: an indicator that selection to start a business operates more strongly along that dimension. This is especially the case among respondents from small cities: lack of personal means of transport is the single most important constraint among potential entrepreneurs, while it is the 12th most important constraint among active entrepreneurs, implying that only entrepreneurs with adequate personal means of transport can start out an activity or alternatively those whose activity does not require means of transport.

Table 10. Constraints to business, by gender and entrepreneurship status

	Absolute values				Relative ranking			
	Current entrepreneurs		Potential entrepreneurs		Current entrepreneurs		Potential entrepreneurs	
How much limited by (0–10)	Male	Female	Male	Female	Male	Female	Male	Female
Funding	3.97	4.04	5.78	4.12	1	2	1	15
Stable supply	3.92	4.14	5.69	6.74	2	1	2	1
Product promotion knowledge	3.71	3.30	5.68	4.70	3	7	3	8
Access to customers	3.46	2.60	5.64	5.84	4	14	4	2
Information on government programs	3.45	3.45	4.96	5.04	5	6	5	4
Personal means of transport	3.45	3.54	4.90	4.49	6	4	6	12
Access to supply	3.43	2.79	4.69	5.33	7	12	7	3
Investors	3.41	2.48	4.54	4.03	8	17	8	16
Business training	3.37	3.22	4.51	4.69	9	8	9	9
Stress/anxiety	3.37	3.18	4.37	4.88	10	9	10	5
Public infrastructure	3.30	3.10	4.34	4.19	11	10	11	14
Technical expertise	3.29	3.51	4.34	4.40	12	5	12	13
Safety	3.26	2.58	3.41	4.77	13	16	13	7
Credit and investors	3.11	2.97	3.20	4.55	14	11	14	11
Negotiation skills	2.85	2.43	2.55	4.58	15	18	15	10
Social pressure and conflict	2.78	2.59	2.50	3.95	16	15	16	17
IT skills	2.76	2.60	2.10	3.27	17	13	17	19
Self-confidence	2.48	2.43	1.97	3.51	18	19	18	18
Prejudices for women		3.56		4.81		3		6

Note: Darker shades of red indicate stronger constraints, in the overall comparison across constraints and across sub-groups.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 11. Severity of self-assessed constraints by geographic area

	Absolute value						Relative ranking					
	Current entrepreneurs			Potential entrepreneurs			Current entrepreneurs			Potential entrepreneurs		
How much limited by (0–10)	Village	City	Small city	Village	City	Small city	Village	City	Small city	Village	City	Small city
Funding	3.84	4.12	3.65	5.66	6.89	3.11	1	2	15	1	2	11
Stable supply	3.50	4.21	5.36	5.52	5.05	4.54	2	1	2	2	9	6
Prejudices for women	3.40	3.64	3.95	5.37	4.96	2.78	3	8	9	3	10	15
Business training	3.23	3.19	5.33	5.04	4.19	2.63	4	13	3	4	15	16
Information on government programs	3.07	3.56	4.92	4.88	5.16	4.64	5	9	4	5	8	5
Access to supply	3.02	3.10	4.71	4.77	5.19	4.69	6	16	7	6	7	4
Product promotion knowledge	2.88	3.80	4.88	4.74	6.94	4.89	7	4	5	7	1	3
Technical expertise	2.85	3.71	3.24	4.53	4.08	3.01	8	6	18	8	16	13
Personal means of transport	2.69	3.93	3.71	4.53	4.95	5.14	9	3	12	9	11	1
Access to customers	2.60	3.23	4.73	3.84	5.49	3.92	10	12	6	10	4	9
Negotiation skills	2.58	2.65	3.54	3.74	5.20	2.92	11	18	16	11	5	14
Safety	2.51	3.16	3.72	3.67	5.20	3.07	12	14	11	12	6	12
IT skills	2.44	2.60	5.79	3.47	4.70	2.04	13	19	1	13	12	17
Stress/anxiety	2.40	3.76	3.71	3.15	4.49	3.31	14	5	13	14	13	10
Public infrastructure	2.38	3.65	3.69	2.97	3.82	4.04	15	7	14	15	18	7
Credit and investors	2.37	3.42	3.32	2.09	4.36	1.93	16	11	17	16	14	18
Investors	2.03	3.45	4.33	2.02	3.41	0.96	17	10	8	17	19	19
Self-confidence	1.84	2.80	2.64	1.83	6.89	4.00	18	17	19	18	3	8
Social pressure and conflict	1.78	3.15	3.73	1.22	4.00	4.89	19	15	10	19	17	2

Note: Darker shades of red indicate stronger constraints, in the overall comparison across constraints and across sub-groups.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Respondents perceive lack of information as a strong constraint—in particular potential entrepreneurs and urban entrepreneurs. Lack of access to information on government programs is reported as a significant constraint by respondents, especially by potential entrepreneurs who report it as the topmost among the list of constraints (see Figure 9).

Access to finance and use of credit

Access to finance is not widespread among entrepreneurs in Uzbekistan. Despite reporting strong concerns about financial constraints, only 14.2 percent of respondents have some outstanding loans.

Table 12. Determinants of demand for credit

	Sample: everyone	Sample: applicants	Sample: never applied				Sample: everyone
	Have you ever applied for a loan? (1 = Yes, 0 = No)	Has your loan application ever been rejected?	Why did not apply? No need	Why did not apply? Don't like	Why did not apply? Don't know how to	Why did not apply? Would not qualify	Has any outstanding loans (1 = Yes, 0 = No)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Asset index	0.0415*** (0.0152)	-0.00408 (0.0323)	0.0422** (0.0195)	0.0257 (0.0183)	-0.0142 (0.0116)	-0.0268** (0.0120)	0.0207* (0.0124)
Female (0-1)	-0.0803* (0.0412)	-0.106 (0.0891)	-0.119** (0.0519)	0.0715 (0.0487)	0.0730** (0.0308)	-0.0166 (0.0319)	0.0585* (0.0335)
Small city (0-1)	-0.00189 (0.0552)	-0.0594 (0.106)	-0.000706 (0.0702)	-0.0372 (0.0659)	0.0593 (0.0417)	0.0108 (0.0431)	0.0614 (0.0448)
City (0-1)	-0.0281 (0.0477)	0.167 (0.102)	-0.0216 (0.0593)	0.0633 (0.0556)	0.0370 (0.0352)	-0.0564 (0.0364)	-0.0309 (0.0388)
Age 30+ (01)	0.162*** (0.0460)	0.0233 (0.105)	-0.123** (0.0568)	0.00481 (0.0533)	-0.0165 (0.0337)	0.0515 (0.0349)	0.161*** (0.0374)
Subsistence	-0.0792* (0.0417)	0.311*** (0.0838)	0.0222 (0.0525)	-0.00932 (0.0493)	-0.00486 (0.0312)	-0.000477 (0.0323)	-0.0560* (0.0339)
Current entrepreneurs (0-1)	-0.0426 (0.0503)	-0.289*** (0.0986)	0.141** (0.0638)	0.132** (0.0599)	-0.179*** (0.0379)	-0.0928** (0.0392)	0.00660 (0.0409)
Constant	0.180** (0.0723)	0.503*** (0.164)	0.329*** (0.0885)	0.0811 (0.0831)	0.228*** (0.0526)	0.244*** (0.0544)	-0.0132 (0.0588)
Observations	491	135	356	356	356	356	491
R-squared	0.054	0.197	0.055	0.039	0.087	0.054	0.063

Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

The primary reason why people do not apply for loans seems to be lack of business drive. Of the 69.9 percent of respondents who never applied for a loan, 41.7 percent explain this decision by saying that they did not feel that they needed credit. Indeed, these respondents give low relevance to financial constraints to growth. However, their perception has more to do with entrepreneurial drive than with returns to investment: restricting the analysis to those who are currently running a business and comparing the businesses of this group (those who report not needing credit) to the rest of the entrepreneurs, we find that their businesses are no larger and no more profitable than those of other respondents in terms of profits. Concerningly, this perception is more common among the youth (52 percent) than among those age 30 or more (39 percent).

A secondary reason why people do not apply for credit is active aversion or fear of contracting a loan. Of those who have never applied for a loan, 31.7 percent report outright dislike for borrowing against interest. Differently from the previous group, these entrepreneurs and potential entrepreneurs do identify capital as a constraint to growth; indeed, their businesses make less revenues than others and are more labor intensive, having fewer assets and more workers. These respondents are not particularly risk averse, but do exhibit lower levels of PI (30 percent of a standard deviation) and LOC (24 percent of a standard deviation) than others. These socioemotional correlates might constitute an internal constraint

to access to finance; however, they might also be the reason why returns from investment would not be large enough—absent a deliberate attempt to improve these skills and traits.

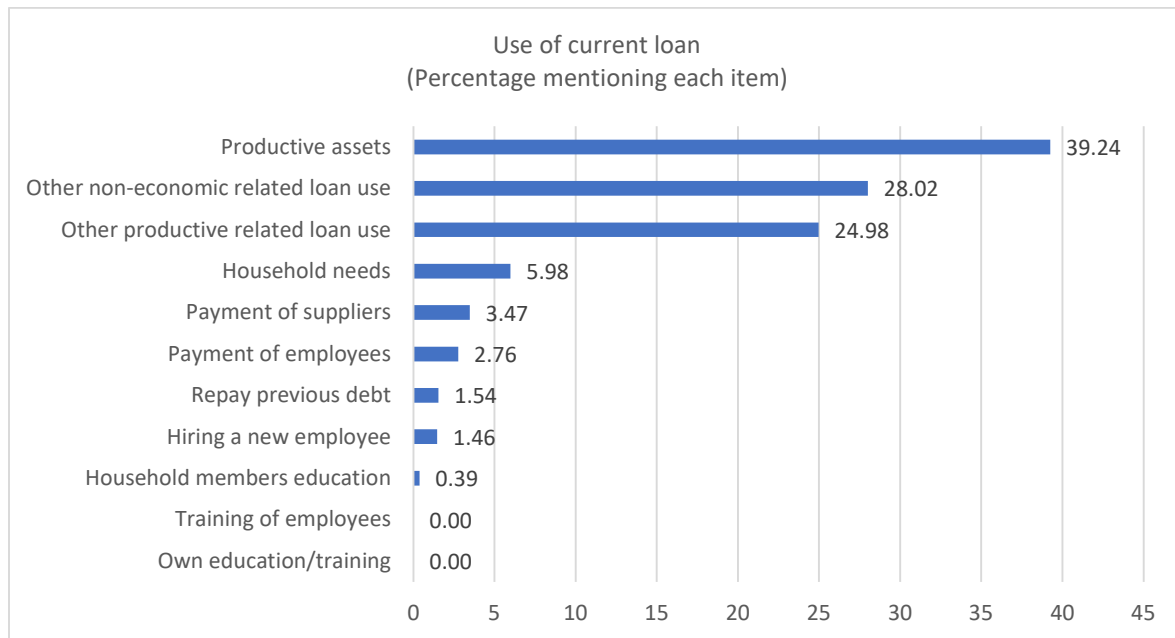
There might be economic, cultural, and institutional reasons behind aversion to borrowing. KIIs helped identify potential reasons why entrepreneurs who might need capital and bring it to a productive use are reluctant to contract a loan. First, a common concern among mahalla leaders and program officers at the regional level revolved around the high interest rate applied to loans – 17 percent in nominal terms. A second concern emerging from the qualitative work is that people have low trust in the credit market, are concerned that hidden clauses might be leveraged against them, and are concerned of outright expropriation of their deposits and savings.

On the other hand, a non-negligible minority of entrepreneurs are truly credit constrained, having the need for credit but lacking the collateral or the information (or both). Among those who never sought a loan, 10.7 percent justify this decision with the conviction that a request would be declined, while another 9.0 percent reported the primary reason to be lack of information. These sources of constraints are more common among potential entrepreneurs than current entrepreneurs. Fear that applications will be rejected is more common among rural respondents, although this is probably an inaccurate perception considering that rural respondents are in fact *more likely* to obtain credit when they apply and their application rates are not disproportionately larger. Those respondents who anticipate not being able to obtain credit display strong collateral constraints as their household assets are significantly lower (89 percent of a standard deviation) than the rest of the survey sample, while all other drivers of business outcomes are comparable: their socioemotional skills are as good as those of any other respondent; their businesses are comparable in terms of profits, revenues, and number of employees; and the value of their business assets is also comparable. This collateral constraint might exist more in the respondents' perceptions than in practice: analysis of credit rejections among those who applied does not show any systematic difference in asset levels between rejected and non-rejected applicants.

In addition, credit applications are frequently rejected as reported by respondents, but are less frequent for women and are not correlated with assets ownership. About 39.2 percent of those who applied have seen their application rejected at least once. Female applicants are more likely to be accepted, partly due to better self-selection among them and partly for unobservable reasons (potentially related to the presence of programs that effectively target female entrepreneurship). Table 1.10 in Annex 1 reports the results of regressions of outcomes of credit applications.

Overall, credit is used in some cases and not always for productive purposes. Only 14.2 percent of respondents have some outstanding loans, and among those 64.6 percent use the active loan for productive purposes, of which the most mentioned are productive assets and other non-specified productive purposes (see Figure 10). Low uptake of credit is mostly caused by low demand: only 30.1 percent of respondents have ever applied for a loan.

Figure 10. Reported use of loan among those with some outstanding debt



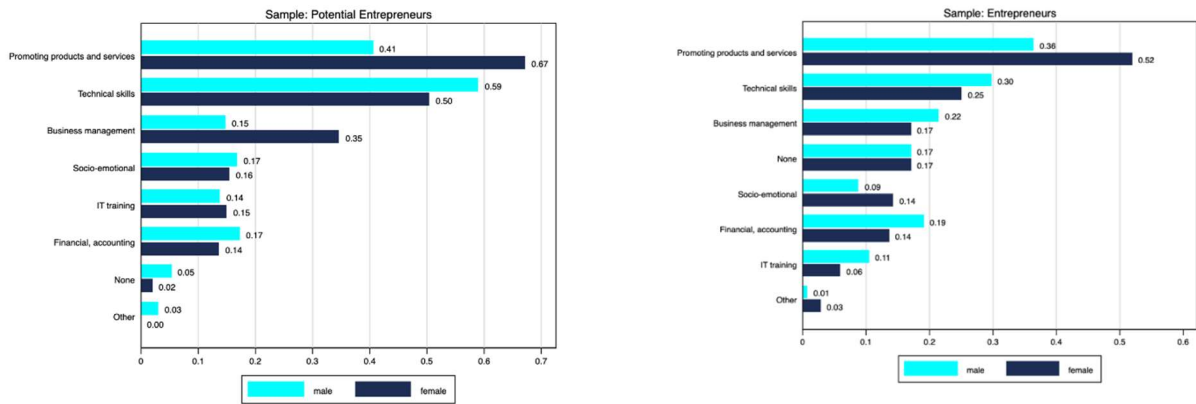
Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Existing public policies in support of entrepreneurship in Uzbekistan

Preferences for entrepreneurship support

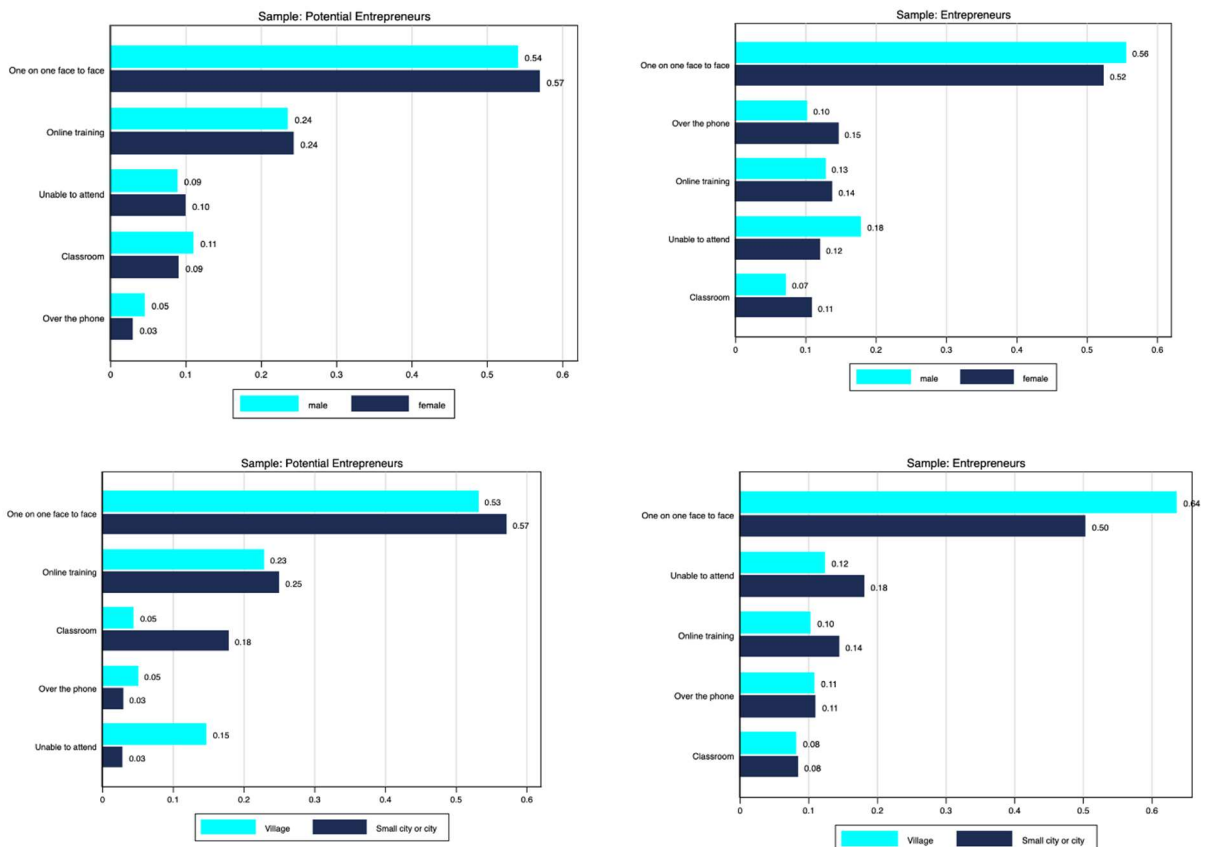
Consistent with the reported constraints, the demand for entrepreneurship support training programs mostly oriented toward business promotion and technical skills is high in Uzbekistan. Almost all (96 percent) of potential entrepreneurs would like to take part in some training program, compared to 83 percent of current entrepreneurs. The most demanded training is for the promotion of own product and services, with significantly higher demand among women than men (see Figure 11). Demand for training on technical skills is also high, especially among those who have not yet started an activity (56 percent) and men (36 percent). Female potential entrepreneurs have a higher demand for business management training. Respondents have a strong perception of the importance of lack of training in constraining business growth: this is particularly the case for men, who rank lack of training on business promotion as the third most important constraint (Table 10). Female entrepreneurs instead are more concerned with lack of technical skills as a perceived constraint to growth.

Figure 11. Preferences for training contents and modalities



Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Figure 12. Preferred training modalities

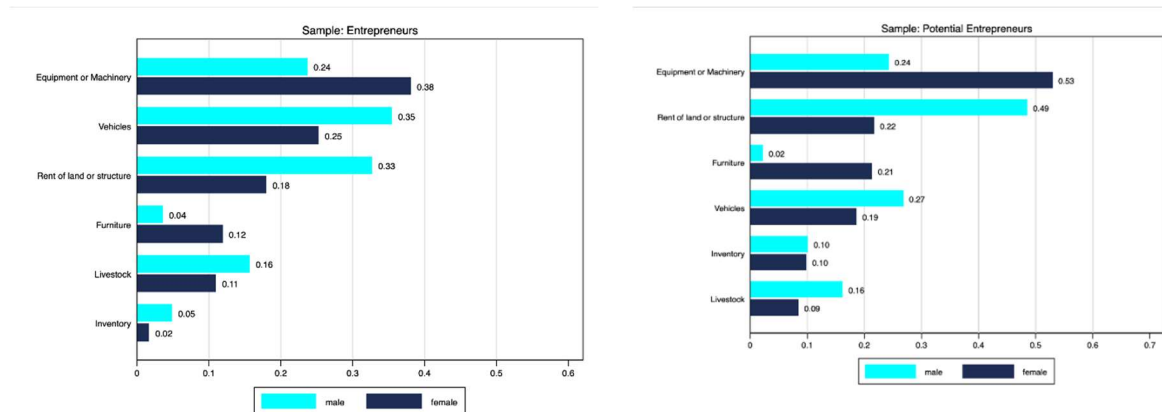


Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

The preferred training modality is one on one, face to face, but the second and third most preferred options vary by gender and type of location. Online training is most preferred by potential entrepreneurs, with little gender differences, and telephone training is preferred by a sizeable minority of current entrepreneurs (see Figure 12). Online training is considered by 24 percent of potential entrepreneurs, against 13 percent among active entrepreneurs, who instead have relatively higher preferences for telephone-based delivery (12 percent against 4 percent among potential entrepreneurs). One-on-one, face-to-face delivery obtains more preferences in villages (61 percent) than in urban areas (52 percent); however, online training and telephone-based delivery have similar levels of appreciation across geographical areas. Current entrepreneurs are generally less interested in attending, especially male entrepreneurs who have higher opportunity cost of time.

Preferences for assets that could be obtained through an entrepreneurship program differ across gender, with female entrepreneurs having a stronger preference for equipment and machinery assets. All respondents, whether potential or current entrepreneurs, prefer vehicles, equipment or machinery, renting of land, or some other location to conduct their business (see Figure 13). However, potential entrepreneurs have a stronger preference for support with land or a structure to conduct their business, while current entrepreneurs on average have more preference for a vehicle. Differences by gender are also significant, with women more interested in equipment or machinery and men more interested in support with renting of land or another physical location for the business. Interestingly, women are less likely than men to show interest in a means of transport as their businesses are more likely to be home based.

Figure 13. Preferences for asset transfers



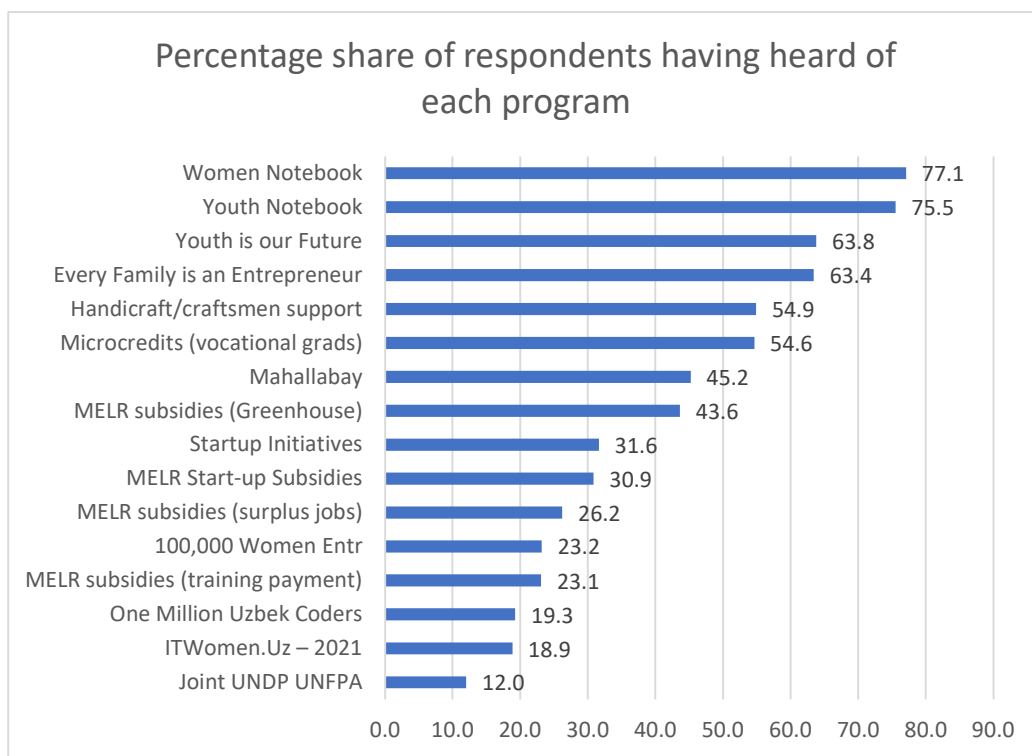
Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

The estimated financial gap to start a business is UZS 25–29 million for potential entrepreneurs and UZS 10–19 million for current entrepreneurs to grow their business. Potential entrepreneurs were asked to provide an estimate of the size of a hypothetical grant to start their planned business. Among those who provided a positive value, the median answer was UZS 25 million (US\$2,250) and the average was UZS 29.1 million (US\$2,610). Entrepreneurs were asked to estimate the size of a hypothetical grant needed to hire a new employee and they provided a median response of UZS 10 million (US\$900) and an average of UZS 18.9 million (US\$1,700). By comparison, these respondents estimate that an additional worker would need UZS 2 million in monthly salaries.

Take-up and awareness of existing programs

The survey reveals good awareness of some existing entrepreneurship support programs. The Women Notebook and Youth Notebook curated by mahalla leaders to target entrepreneurship services (training) and benefits (assets) are well known by the vast majority of respondents (Figure 14).¹¹ The most well-known programs are Youth is our Future and Every Family is an Entrepreneur, known by almost two-thirds of respondents. Half of the respondents are aware of the concessional microloans for graduates and in-kind assets provided to craftsmen. Less popular are benefits implemented by the Ministry of Employment and Poverty Reduction to support greenhouse income-generating activities and reduce the cost of business start-up, known by 40 percent and 30 percent of respondents, respectively. Donor-supported programs (such as the United Nations Development Programme-United Nations Population Fund [UNDP-UNFPA], 100,000 Women Entrepreneurs, and ITWomen.Uz) are the least popular perhaps due to either their pilot nature or small scale. To some extent, differences in awareness might be the result of different entrepreneurial drive: personal initiative is a predictor of the number of programs the respondent is aware of. The positive correlation of program awareness with asset level can also be the result of reverse causation or of unobserved entrepreneurial skills.

Figure 14. Share of respondents aware of existing entrepreneurship support programs



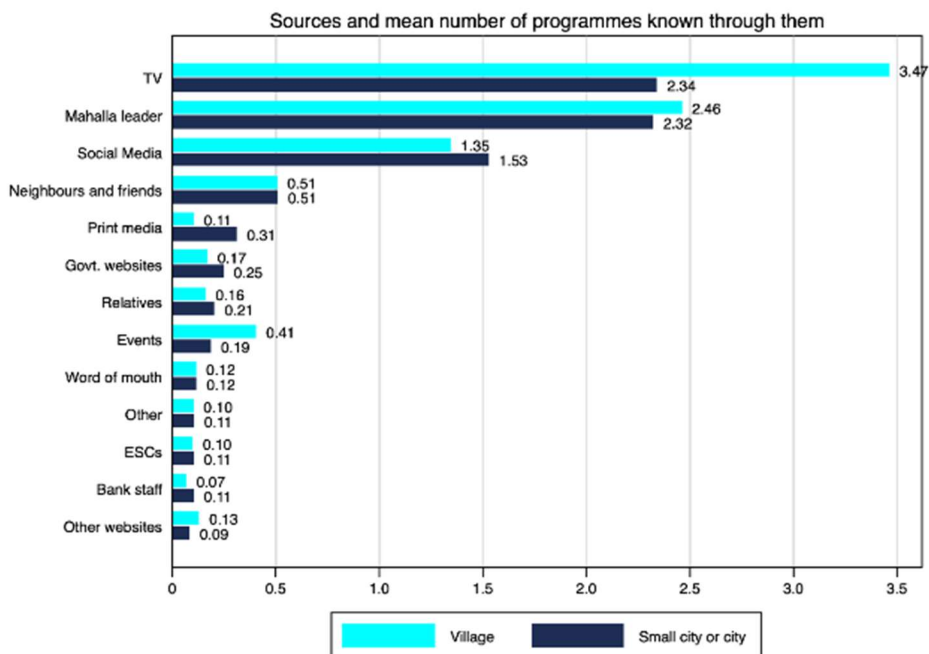
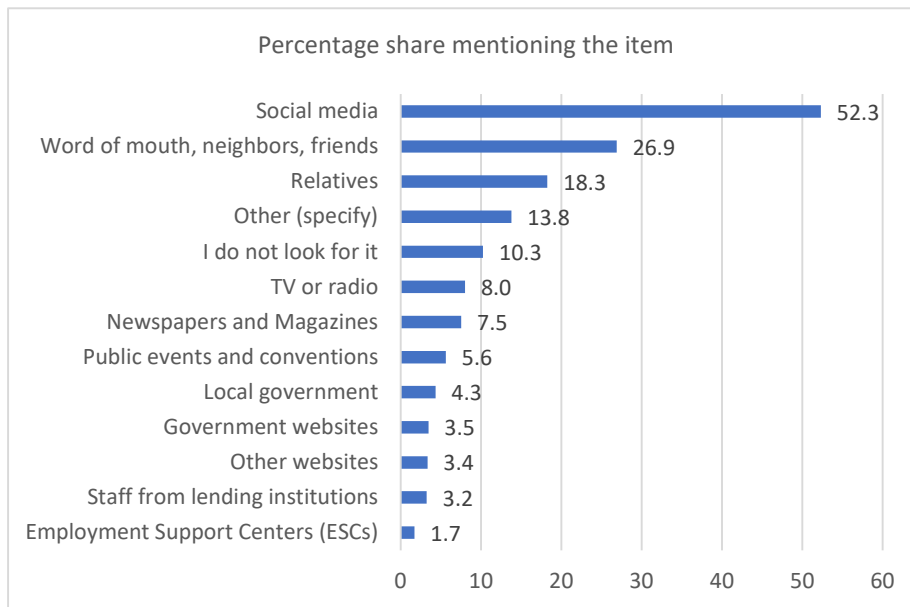
Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

There is a mismatch between the means through which programs are advertised and that most generally used by respondents to access information. The vast majority (52 percent) of respondents

¹¹ See Annex 2 and Annex 4 for a classification and a description of programs.

report use of social media as a source of information, 27 percent use social connections (word of mouth, neighbors, and friends), 18 percent rely on relatives, and only 8 percent rely on TV or radio (see Figure 15). However, TV and mahalla leaders are the sources that provide information on more than one program especially in rural areas: an average of 3.5 programs are discovered through television in rural areas and 2.3 in urban areas and then through mahalla leaders (2.5 in rural areas and 2.3 in urban areas) and social media (1.4 in rural areas and 1.5 in urban areas).

Figure 15. Most used information sources to find out about opportunities and programs

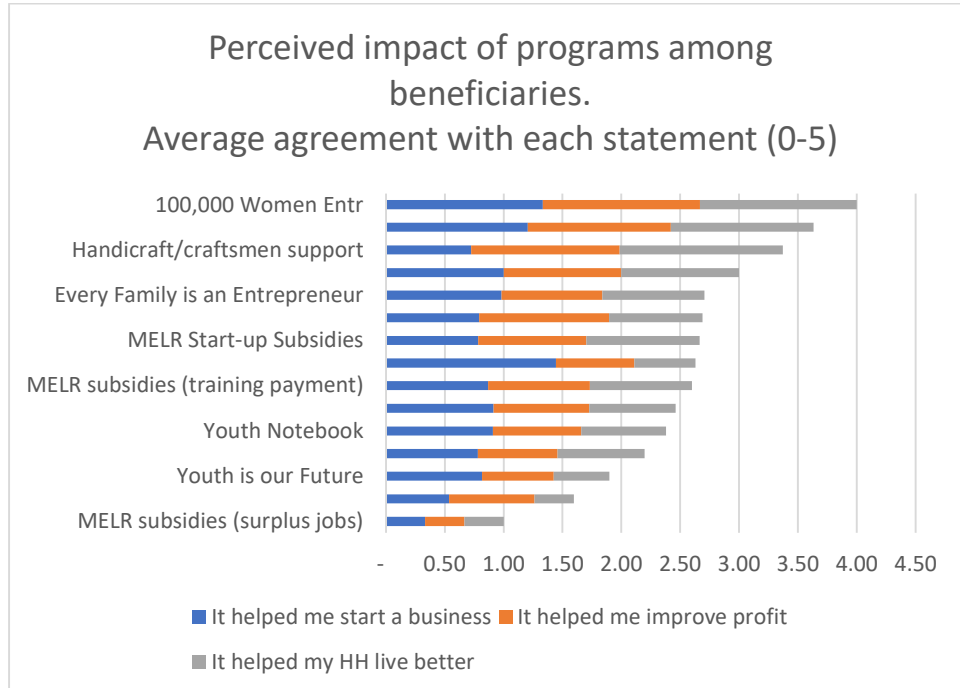


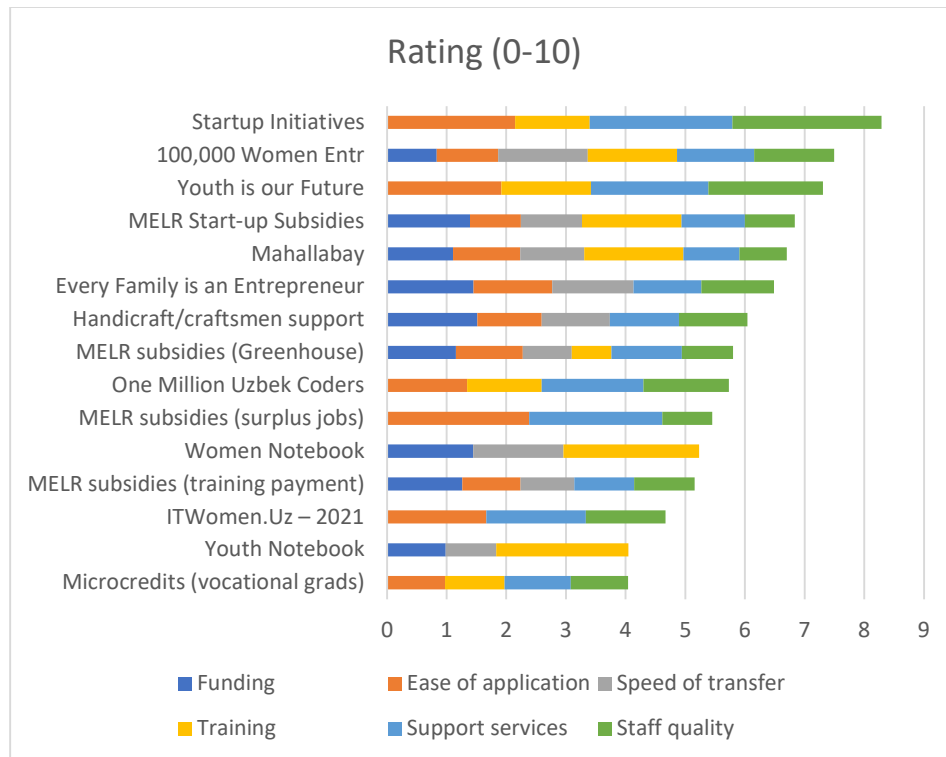
Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Despite high interest in training programs and some gaps in skills and business practices, few entrepreneurs have undertaken any formal training and nearly none of them had training in socioemotional skills. Only 16.4 percent of respondents have undertaken some training. Of the different types of training, the most common are financial management practices (5.9 percent) and vocational training (4.9 percent). Overall, training is mostly technical undertaken by entrepreneurs in the construction sector, scientific and technical activities, and transportation and storage. Only 1.5 percent of respondents report to have completed a training in socioemotional skills, most likely due to the limited provision of such training.

Beneficiaries of selected programs supporting entrepreneurship do not undertake training activities and, when they do, they are not satisfied. With the caveat that the total number of respondents who have taken part in some of the selected programs is small, a pattern of low take-up of training emerges (see Table 1.12 and Table 1.13 in Annex 1). Of the 25 respondents who benefited from Every Family is an Entrepreneur, for instance, none reported having received any training (be it related to entrepreneurship, IT skills, or technical skills). The Women Notebook and the Youth Notebook provide the platform to access subsidized business training offered by mahallas and *hokims*. However, the quality of training has modest ratings (6.8 and 6.6 respectively), and the rated effectiveness of the notebooks at helping people start a business or improve profits is lower than Every Family is an Entrepreneur or the greenhouse subsidies. Among survey respondents, ratings to the quality of trainings of selected programs are rarely above 5 on a 0–10 scale and the perception of staff quality is generally low (with the exception of Youth is our Future, 100,000 Women Entrepreneurs, and the Start-up Initiatives).

Figure 16. Survey findings on selected programs, and ratings reported by program beneficiaries





Source: Entrepreneurs in Uzbekistan survey (2022), World Bank

Specific focus is given to the start-up subsidy program implemented by the Ministry of Employment and Poverty Reduction introduced in 2019 to encourage business creation, expansion, and formalization among the unemployed. The program was introduced by the Ministry of Employment of the Republic of Uzbekistan at the time.¹² The program provides subsidized registration fees, insurance, and training for unemployed individuals registered with ESCs who wish to start a business. Subsidies include the following elements: reimbursement of fees to register as individual entrepreneurs and to register the business as a small enterprise or micro-firm, coverage of loan insurance policies for beneficiaries who separately obtain a loan in the private sector, and entrepreneurship training to provide practical advice on how to start a business and know-how on successful management practices and mindset.

Awareness of the start-up subsidy program is limited, but beneficiaries are strongly satisfied with the adequacy of funding and the trainings provided. About 30.85 percent of respondents have heard of the program; among them, 10.7 percent ever applied, out of which 42 percent of applications were approved, 15.6 percent are pending, and 25.2 percent were rejected. Among beneficiaries in the sample, ratings for the quality of the start-up subsidy are high (Figure 16 and Table 1.12 in Annex 1).

However, the ease of application to the start-up subsidy program is rated low, and many interested in the program do not apply because of procedural difficulties. Among those who knew about the program but did not apply, the majority (65.3 percent) did so because they say they do not need it, but 17.8 percent say they did not know how to apply, 8.3 percent did not know about it, and 5.8 percent heard too late: bringing together those who did not apply because they did not know how to apply, did not know about

¹² MELR decree No. 4427 of 2019.

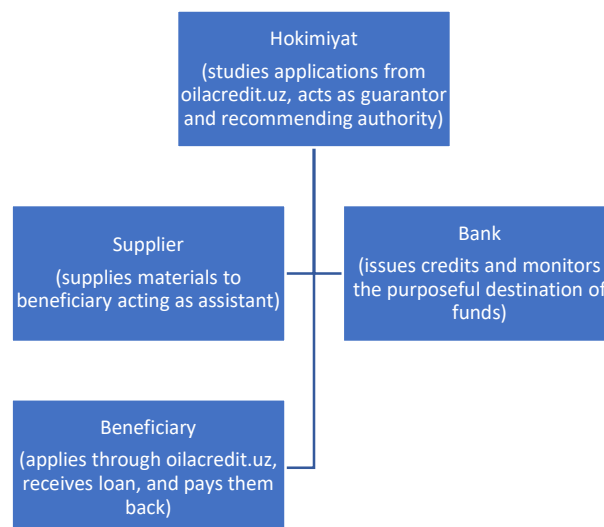
program, or it was too late, the share of people who are aware of the program and did not apply but have some interest is 33.8 percent.

About one-third of the respondents would be potentially interested in the start-up subsidy program if they knew about it. Among those who have never heard of the program, 32 percent are instead very or extremely likely to apply if they had heard of it. About 3.3 percent have applied, 9.3 percent were aware but did not apply because of insufficient information, and 22.1 percent were not aware but are very or extremely likely to apply, expanding the basis of potential applicants to 34.7 percent of the population: 52.6 percent among potential entrepreneurs and 29.8 percent among current entrepreneurs. Multivariate analysis of the determinants of interest for the program reveals that, among those who did not apply, those who have some interest are more likely to be from rural areas or small cities, are more likely to be entrepreneurs by necessity, and have more household assets.

Governance and implementation arrangements

In most programs, the central government allocates funding managed by the regional administration, which sets strategies, determines eligibility, and manages referrals. Most programs are financed by the central government, allocating financial resources to specific services (banks, training centers: predominantly *monocenters* and IT parks). The central figure is the regional *hokim* and his/her assistants, who oftentimes operate in coordination with the women’s committee. The thought process uncovered during the KIIs among local leadership is that the local administration first identifies a need in the local economy (for example, increasing poultry production) and a set of potential beneficiaries and then makes use of the financial resources provided by the programs to cover the needs. Figure 17 exemplifies the architecture of Every Family is an Entrepreneur, one of the most successful and well-known entrepreneurship support programs.

Figure 17. Scheme of interaction of stakeholders in ‘Every Family is an Entrepreneur’ program



Source: key informant interviews and desk review, World Bank

Local-level mahalla leadership is in charge of outreach and follow-up with beneficiaries. The outreach strategy of economic inclusion programs puts mahalla committees at the forefront of program delivery,

at the stages of outreach, intake, and registration. The institution of programs such as Mahallabay, which in itself represents a governmental ‘per mahalla’ strategy to address socioeconomic issues, hinges on the role of figures such as the hokim’s assistant, who is in charge of understanding the needs of the people in the mahallas, especially vulnerable, unemployed, and low-income individuals, verifies the correct use of funds and assets. The hokim’s assistant also evaluates the performance of program beneficiaries, including the quality of the work and timeliness of the development of the businesses to which loans are directed, and communicates with the banks, who deliver the financing depending on the information received.

At the central level, institutional coordination is fragmented and undergoing deep changes. Different public bodies concur to the set-up of programs’ priorities and their management, for example, the Ministry of Information Technology and Communications Development, the former Ministry of Labor and Employment Relations (MELR),¹³ the Central Bank of Uzbekistan, Agency for Working Mahallabay, and the Development of Entrepreneurship. In recent years, there has been a trend toward transferring competence of entrepreneurship programs to the Ministry of the Economy and Poverty Reduction and the Agency for Entrepreneurship Support. The agency does not have implementation capacity but rather decides which are the training and types of microloans eligible for subsidies and the eligibility criteria and reimburses implementing organizations for delivery of services against evidence of expenditure. Over the last years, several transfers of authority over different entrepreneurship programs have taken place. Some programs have been transferred from current ministries to new agencies. In the short term, this creates adjustment costs and loss of institutional learning.

KIIs with management of programs at the local level reveal a widespread concern about fragmentation across programs and limited information about the range of programs that can be offered. Most KII respondents report a concern that the existence of separate programs with similar purposes and eligibility criteria might create gaps in monitoring. The most reported concern from local management is the risk of fraud an error and the suspicion that some beneficiaries may be double dipping. Management has limited information about the range of programs that can be offered: in several interviews, the respondents who were identified as responsible for one program at the local level were not fully aware of the distinction between similar programs. This is due to the very nature of programs such as ‘budget lines’ supporting eligible expenses that are defined at the local level: the local management does not have a precise distinction between separate programs in its mind, as all the programs concur to the same needs and goals identified at the local level.

With some exceptions such as Every Family is an Entrepreneur, most other programs suffer from limited informational flows from the local to the central level. Most KIIs conducted with management of programs at the national level suggest that there is limited financial capacity and human resources to conduct business intelligence analysis of the data provided. Every Family is an Entrepreneur provides a successful example of information management. The program is monitored centrally through a well-developed management information system, accessible to the local government, and interoperable with the commercial banks’ own systems. Data are analyzed at the regional level by the regional *hokimyats* who use the system to select applications and to give referrals to banks. Assistant *hokims* follow up on beneficiaries to monitor the use of funds and the status of the loan repayments, and commercial banks

¹³ Note that the programs analyzed as part of this study were limited to those delivered between 2019 and 2022, before the MELR was reformed into the Ministry for Employment and Poverty Reduction (MEPR).

are the primary users. It is not clear whether these data are used at the central level to monitor the impact of the program on business outcomes of beneficiaries.

Programs often lack a theory of change and mechanisms to monitor impact on beneficiary welfare in the longer term. Overall, lack of monitoring and evaluation is both a cause and a consequence of the limited capacity to analyze impact of programs on beneficiaries' welfare in the long term—moving beyond the mere repayment statistics, which are collected and analyzed by the commercial banks delivering subsidized loans. Answers to questions on programs' objectives and indicators reveal the absence of the concept of a results framework and a theory of change to measure intended impact on beneficiaries.

With the exception of some niche programs, training components are often designed at the local level, with limited standardization and alignment with international best practices. Most programs include some type of training in their scope of activities (although, as we shall see, surveyed beneficiaries seem to suggest that training is limited) and this is mostly vocational, IT, and training on entrepreneurship. The curricula of these trainings are not publicly available and the providers are usually local NGOs or employers: here is where the judgment of the regional hokim is exerted. There are two notable exceptions to the general trend for trainings provided in a decentralized and non-standardized way: the regional *monocenters* and the IT parks. Regional *monocenters* were established by the central government with the support of Asian Development Bank (ADB) and ILO. IT parks are complexes of facilities, buildings, and structures where IT training centers and IT companies can become residents and enjoy a zero corporate tax, no custom payments for imports, low social payments, and a 7.5 percent income tax. Resident companies can access the 'IT market' for contracts, job applicants' profiles, a dataset of IT companies in the country, and scientific and educational organizations. IT parks provide access to a series of services—accounting, legal, marketing, and educational support, among others. IT parks were developed with technical assistance from the Republic of Korea and several programs fund participation in them. Beyond these two exceptions, when it comes to socioemotional skills or entrepreneurship, there is limited alignment to international best practices.

The qualitative research conducted through desk reviews and KIIs is limited by scarce availability of information and the fragmented nature of entrepreneurship support. The process of desk review and ensuing KIIs has revealed the difficulty of obtaining quality information about different programs, for both the general public and institutional users. Although the most well-known programs have some visibility, even the most high-level information such as overall program coverage, expenditure, and number of beneficiaries was hard to obtain. This inherently limits the quality of information that can be obtained by the general public and NGOs who might want to contribute to the development of entrepreneurship. A second limitation to the qualitative research strategy is the imperfect identification of respondents for each program.

Conclusions and policy recommendations

Entrepreneurs in Uzbekistan have differing motives for entrepreneurship, skills, and needs. Entrepreneurs and potential entrepreneurs in Uzbekistan make up a significant share of the population, larger than the equivalent in comparable countries such as Kazakhstan. The goal of this study was to better understand the diversity of motivations and the specificities of needs among different groups. Overall, the studied population has high education and is capable of performing some more replicable business practices, such as setting goals and making business plans. However, business outcomes are not

satisfactory. Several factors limit the success of entrepreneurs in Uzbekistan and need to be understood separately.

There is broad heterogeneity of outcomes across several observable and unobservable dimensions: gender, age, motivation for entrepreneurship, and having already started a business or being still at the planning stage. Barriers to entry and survival are high, as testified by the large differences between currently active entrepreneurs and potential entrepreneurs. Women, rural, and necessity entrepreneurs have significantly worse business performance. However, each of these groups suffers from specific gaps and requires different interventions. Female entrepreneurs, for instance, need access to a more stable network of suppliers and customers and better marketing skills. Rural entrepreneurs perform worse despite starting out from better socioemotional skills and higher mental health.

Although financial constraints are in the top concerns of entrepreneurs, there is little demand for credit—albeit subsidized. Only 30 percent of the respondents have ever applied for a loan in their lifetime. Only 14.2 percent of the respondents have some outstanding loans, and among them, 35.4 percent do not use the loans for productive purposes. Access to finance is low but does not seem to be determined by collateral constraints nor seem to be skewed against female applicants. Overall, a segment of the population cannot access credit due to lack of information or some form of discouragement (for example, anticipating that an application will be rejected). However, the majority of entrepreneurs are not interested in borrowing. This study suggests some of the reasons: lack of aspiration to grow, fear of inability to repay, mistrust toward the financial sector, lack of information, and red tape. More research is needed to understand which entrepreneurs will most likely benefit from subsidized lending.

There is high unmet demand for training. Training and mentorship are frequently mentioned in KIIs and programs description, but it is lacking in practice (despite being there on paper). Survey evidence shows that beneficiaries of selected programs do not undertake training activities and when they do, they are not satisfied. Even beyond the programs studied, formal training is limited and mostly focused on vocational training in technical skills. The potential demand for training, however, is high, in particular among those who need to start their activity: as many as 96 percent of aspiring entrepreneurs have the desire to undertake some training. To overcome barriers to access, training modalities should be adapted to the needs of different types of target beneficiaries, including online and telephone-based modalities, which encounter the interest of a relevant share of respondents, especially among the youth and those who are yet to start a business.

Socioemotional skills are highly correlated with business outcomes, but there is little to no delivery of training on this respect. In the sample, socioemotional skills, especially personal initiative and generalized self-efficacy, are correlated with business size, revenues, and personal income from across all businesses. However, survey respondents are unlikely to have ever encountered one such training. KIIs with program management at the local level as well as desk reviews of training curricula show that there is little delivery of training on socioemotional skills. Youths, women, urban, and potential entrepreneurs are the most disadvantaged across these dimensions.

Training on business practices could be beneficial to some extent. For the type of population that needs to be served by economic inclusion programs, rule-of-thumb trainings are shown to be more effective (Drexler et al., 2014). Among respondents to the survey, the most important correlates of business outcomes are IOS practices. More sophisticated skills and practices such as RKFM and OPM are not positively correlated with business outcomes and might therefore require less attention.

To improve the delivery of training programs at scale, emphasis must be on common protocols and the quality of trainers, bringing in international expertise. KIIs reveal a fragmented approach to the delivery of training, with little information in the hands of the program management on the type and quality of the training offered by the providers that operate in a certain area. This reflects in the results of the survey, which show some dissatisfaction with the quality of programs and their trainings in general. A review of training curricula from local providers confirms the presence of relevant gaps in the quality of training material concerning socioemotional skills and sometimes a misunderstood notion of positive thinking.

Information about support programs is not widely available, especially in some segments of the population. Respondents in the cities know fewer programs than respondents in rural areas: this is a large number and is mostly explained by the fact that they are also less likely to use television to look for information on business opportunities. Similarly, lack of access to information is self-reported as a strong constraint especially by potential entrepreneurs and, among them, by those in small cities. The outreach strategy of most programs, relying on TV ads and local leadership, is not sufficient to provide information to the intended population. This is confirmed by desk review and the analysis of the survey's findings. Authorities at the local and national levels report difficulties in reaching the target population with information regarding the provisions from programs currently in place. The management of programs mentions television as one of the main tools to spread information about the programs. The role of mahalla leadership in identifying potential beneficiaries and directing interested people to the relevant services is a key strength of the public support system. Reaching out to those in need in each community is a strength in the capacity of programs to reach out to their intended target population, after the targeting criteria are clearly specified, and a profile of intended beneficiaries is created. However, clearly not everyone considers mahalla leadership as one of the main sources of information concerning business opportunities and even those who have heard of programs do not cite mahalla leadership as the primary source in the first place.

Public policies in support of entrepreneurship rely on strong local capacity to support beneficiaries and monitor results; however, at the central level there is limited capacity to collect and analyze information on program impact. Granular quality information is available at the local level, where mahalla committees regularly update registers of people in need of assistance (Iron, Women, and Youth Notebooks) and use them as triaging tools for the delivery of social assistance and other entrepreneurship support. This strategy received a boost with the adoption of the Mahallabay strategy in December 2021. The local government is an asset as it can closely follow up with beneficiaries after the delivery of goods or services through entrepreneurship programs—which can be a key factor of success (Kluve et al., 2017). However, it does not seem like the precious data available at the local level are adequately used and analyzed for business intelligence by the agencies responsible for entrepreneurship support programs. According to KIIs with national level management, the central authorities seem to lack the financial and human resources needed to analyze micro-data and integrate learning points into the design.

Fragmentation across programs limits opportunities for mutual learning and risks, creating unnecessary overlaps. Each program sees some degree of involvement of many separate entities, including ministries, agencies, and commercial banks. Micro-data are mostly held by the latter. These barriers to the circulation of information prevent the pursuit of sensible business intelligence activities. Better sharing of information would allow to detect cases of double dipping, which are reported as a common concern by KII respondents. By pooling the information across central agencies, it would also improve the capacity to monitor the quality of delivery. The creation of the Agency for Entrepreneurship has been an effective

first step as it introduced an actor with the clear mandate of supporting the self-employed. The agency still has limited capacity to set the priorities of programs. Its role is mostly focused on deciding which types of activities can be supported by specific programs; however, it does not set strategic priorities.

Improving support for entrepreneurship requires building on the many existing strengths in the hands of the GoU and incrementally incorporating new approaches. The system has undergone several institutional reforms that assist in better information sharing at the central level. Uzbekistan already has the local government as the main strength to target beneficiaries and monitor delivery. The main weaknesses are in the capacity to analyze information on programs' impact and to design high-quality programs that complement subsidized lending with a combination of grants, asset transfers, and training. To address these weaknesses, there is a need to invest in information infrastructure, in the human resources to conduct quality data analysis for the decision-makers, and in accessing international best practices to design entrepreneurship programs.

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Annex 1. Tables from the survey analysis

Table 1.1. Demographics of the survey sample

Variable	Potential entrepreneurs	Current entrepreneurs	Difference current entrepreneurs versus potential entrepreneurs
% Female	0.410 (0.494)	0.444 (0.497)	0.034 (0.052)
Age (years)	35.097 (12.213)	38.683 (12.068)	3.586*** (1.277)
Older than 30	0.531 (0.501)	0.755 (0.431)	0.224*** (0.047)
Adult (age 25+)	0.854 (0.355)	0.898 (0.304)	0.044 (0.033)
Married	0.709 (0.456)	0.782 (0.413)	0.073 (0.045)
Household size	5.868 (2.052)	6.127 (2.730)	0.259 (0.274)
Has a child under 5 years of age	0.407 (0.493)	0.415 (0.493)	0.008 (0.052)
Number of children <5 years of age	0.600 (0.841)	0.552 (0.743)	-0.048 (0.081)
Has a child under 14 years of age	0.531 (0.501)	0.607 (0.489)	0.076 (0.052)
Number of children <14 years of age	1.046 (1.133)	1.277 (1.247)	0.231* (0.129)
Education: Less than primary	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Education: Primary completed	0.000 (0.000)	0.008 (0.089)	0.008 (0.008)
Education: Lower secondary completed	0.252 (0.436)	0.238 (0.427)	-0.014 (0.045)
Education: General upper secondary completed	0.181 (0.387)	0.254 (0.436)	0.073 (0.045)
Education: Vocational upper secondary completed	0.390 (0.490)	0.333 (0.472)	-0.058 (0.050)
Education: Some college	0.029 (0.169)	0.039 (0.195)	0.010 (0.020)
Education: Undergraduate studies completed	0.147 (0.355)	0.121 (0.327)	-0.026 (0.035)
Education: Graduate studies completed	0.000 (0.000)	0.005 (0.072)	0.005 (0.007)

Variable	Potential entrepreneurs	Current entrepreneurs	Difference current entrepreneurs versus potential entrepreneurs
Education	0.777 (0.418)	0.814 (0.390)	0.037 (0.042)
Years of education	13.565 (3.988)	12.766 (3.487)	-0.799** (0.382)
educ_coarse==<Secondary	0.223 (0.418)	0.186 (0.390)	-0.037 (0.042)
educ_coarse==Secondary completed	0.630 (0.485)	0.687 (0.464)	0.057 (0.050)
educ_coarse==Undergraduate or more	0.147 (0.355)	0.126 (0.333)	-0.020 (0.036)
=1 if small city or city, 0 if village	0.460 (0.501)	0.624 (0.485)	0.164*** (0.052)
Small city	0.137 (0.345)	0.231 (0.422)	0.095** (0.043)
City	0.323 (0.470)	0.393 (0.489)	0.070 (0.052)
Village	0.540 (0.501)	0.376 (0.485)	-0.164*** (0.052)
Observations	115	394	509

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 1.2. Economic outcomes among potential and current entrepreneurs.

Variable	Potential entrepreneurs	Current entrepreneurs
HH income	4.5e+06 (3.7e+06)	5.3e+06 * (4.4e+06)
Received any social assistance	0.37 (0.48)	0.37 (0.48)
HH social assistance received	1.1e+06 (3.2e+06)	1.4e+06 (3.8e+06)
Received any other transfer	0.10 (0.31)	0.04 ** (0.20)
HH transfers from others	5.6e+05 (3.2e+06)	5.5e+05 (6.0e+06)
Ratio of household income over minimum necessary household income	0.79	0.76

Variable	Potential entrepreneurs	Current entrepreneurs
	(1.37)	(0.90)
Income below minimum necessary (1 = Yes; 0 = No)	0.83	0.79
	(0.38)	(0.41)
Food insecurity last 30 days (1 = Yes; 0 = No)	0.36	0.24 ***
	(0.48)	(0.43)
Asset index	-0.21	0.01 **
	(0.95)	(1.01)
Total number of observations	115	394

Note: HH= Household.

Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Table 1.3. Demographics of the sample, by opportunity versus necessity

Variable	Current entrepreneurs		Potential entrepreneurs	
	By necessity	Opportunity driven	By necessity	Opportunity driven
% Female	0.37	0.50***	0.41	0.41
	(0.48)	(0.50)	(0.50)	(0.50)
Age (years)	39.73	37.86	37.82	32.70**
	(12.51)	(11.67)	(13.49)	(10.50)
Older than 30	0.78	0.74	0.63	0.45*
	(0.42)	(0.44)	(0.49)	(0.50)
Adult (age 25+)	0.90	0.90	0.91	0.80
	(0.30)	(0.30)	(0.29)	(0.40)
Married	0.78	0.78	0.86	0.58***
	(0.41)	(0.41)	(0.35)	(0.50)
Household size	6.48	5.85**	5.59	6.11
	(2.75)	(2.69)	(1.51)	(2.42)
Has a child under 14 years of age	0.57	0.64	0.62	0.45*
	(0.50)	(0.48)	(0.49)	(0.50)
Number of children <14 years of age	1.20	1.34	1.29	0.83**
	(1.28)	(1.22)	(1.17)	(1.07)
Has a child under 5 years of age	0.36	0.45*	0.52	0.31**
	(0.48)	(0.50)	(0.50)	(0.46)
Number of children <5 years of age	0.52	0.58	0.83	0.39***
	(0.76)	(0.73)	(0.97)	(0.65)
=1 if small city or city, 0 if village	0.65	0.61	0.33	0.57**
	(0.48)	(0.49)	(0.48)	(0.50)
Village	0.35	0.39	0.67	0.43**
	(0.48)	(0.49)	(0.48)	(0.50)
Small city	0.23	0.23	0.19	0.09
	(0.42)	(0.42)	(0.40)	(0.29)
City	0.41	0.38	0.14	0.48***
	(0.49)	(0.49)	(0.35)	(0.50)

Variable	Current entrepreneurs		Potential entrepreneurs	
	By necessity	Opportunity driven	By necessity	Opportunity driven
Migrant	0.07 (0.26)	0.14** (0.35)	0.25 (0.43)	0.18 (0.38)
Years of education	12.50 (3.40)	12.97 (3.55)	13.31 (3.98)	13.79 (4.02)
Education: Less than primary	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Education: Primary completed	0.01 (0.11)	0.00 (0.07)	0.00 (0.00)	0.00 (0.00)
Education: Lower secondary completed	0.24 (0.43)	0.24 (0.43)	0.37 (0.49)	0.15*** (0.36)
Education: General upper secondary completed	0.35 (0.48)	0.18*** (0.38)	0.13 (0.33)	0.23 (0.42)
Education: Vocational upper secondary completed	0.26 (0.44)	0.39*** (0.49)	0.37 (0.49)	0.41 (0.49)
Education: Some college	0.05 (0.22)	0.03 (0.18)	0.02 (0.13)	0.04 (0.20)
Education: Undergraduate studies completed	0.08 (0.28)	0.15** (0.36)	0.11 (0.32)	0.18 (0.38)
Education: Graduate studies completed	0.00 (0.07)	0.01 (0.08)	0.00 (0.00)	0.00 (0.00)
Total number of observations	173	221	51	64

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 1.4. Welfare of respondents

Variable	Current entrepreneurs		Potential entrepreneurs	
	Subsistence	Opportunity	Subsistence	Opportunity
HH income	5.5e+06 (5.0e+06)	5.1e+06 (3.9e+06)	4.4e+06 (3.7e+06)	4.6e+06 (3.6e+06)
Log of income	15.18 (0.84)	15.19 (0.73)	15.05 (0.68)	15.14 (0.63)
Received any social assistance	0.33 (0.47)	0.40 (0.49)	0.49 (0.51)	0.25** (0.43)
HH social assistance received	9.2e+05 (3.1e+06)	1.7e+06** (4.2e+06)	1.8e+06 (4.4e+06)	3.5e+05** (1.0e+06)
Log of social assistance	12.96 (1.00)	13.22** (1.28)	13.39 (1.28)	12.75*** (0.71)
Received any other transfer	0.03 (0.17)	0.05 (0.22)	0.10 (0.31)	0.10 (0.31)
HH transfers from others	5.9e+05 (8.5e+06)	5.1e+05 (3.1e+06)	82259.97 (3.4e+05)	1.0e+06 (4.4e+06)
Log of other transfers	12.66	12.76	12.69	12.85

	(0.45)	(0.70)	(0.29)	(0.93)
Minimum HH income for basic needs (UZS)	1.1e+07 (1.6e+07)	9.7e+06 (1.1e+07)	1.1e+07 (1.6e+07)	9.6e+06 (1.2e+07)
Minimum HH income for basic needs (log UZS)	15.82 (0.76)	15.81 (0.68)	15.76 (0.84)	15.73 (0.81)
Ratio of household income over minimum necessary household income	0.79 (0.97)	0.75 (0.85)	0.56 (0.36)	1.00 (1.84)
Income below minimum necessary (1 = Yes; 0 = No)	0.80 (0.40)	0.78 (0.42)	0.84 (0.37)	0.82 (0.38)
Food insecurity last 30 days	0.25 (0.44)	0.22 (0.42)	0.42 (0.50)	0.30 (0.46)
Asset index	-0.10 (1.04)	0.09* (0.97)	-0.34 (0.89)	-0.09 (0.99)
Total number of observations	173	221	51	64

Note: HH= Household.

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Table 1.5. Demographics by gender

Variable	Current entrepreneurs		Potential entrepreneurs	
	Men	Women	Men	Women
Age (years)	39.64 (12.77)	37.48* (11.05)	35.76 (13.79)	34.14 (9.55)
Older than 30	0.77 (0.42)	0.73 (0.44)	0.52 (0.50)	0.55 (0.50)
Adult (age 25+)	0.90 (0.30)	0.89 (0.31)	0.84 (0.37)	0.88 (0.33)
Married	0.82 (0.39)	0.74* (0.44)	0.71 (0.46)	0.71 (0.46)
Household Size	6.39 (2.48)	5.79** (2.99)	6.10 (1.91)	5.54 (2.22)
Has a child under 14 years of age	0.63 (0.48)	0.58 (0.49)	0.46 (0.50)	0.64* (0.49)
Number of children <14 years of age	1.33 (1.26)	1.21 (1.23)	0.81 (1.00)	1.39*** (1.23)
Has a child under 5 years of age	0.45 (0.50)	0.37 (0.48)	0.37 (0.49)	0.45 (0.50)
Number of children <5 years of age	0.61 (0.79)	0.47* (0.68)	0.48 (0.69)	0.77* (1.01)
=1 if small city or city, 0 if village	0.63 (0.48)	0.61 (0.49)	0.36 (0.49)	0.59** (0.50)
Village	0.37 (0.48)	0.39 (0.49)	0.64 (0.49)	0.41** (0.50)

Variable	Current entrepreneurs		Potential entrepreneurs	
	Men	Women	Men	Women
Small city	0.24 (0.43)	0.22 (0.41)	0.12 (0.33)	0.16 (0.37)
City	0.39 (0.49)	0.39 (0.49)	0.25 (0.43)	0.43** (0.50)
Migrant	0.13 (0.34)	0.08 (0.27)	0.16 (0.37)	0.28 (0.45)
Years of education	13.08 (3.53)	12.37** (3.40)	12.82 (3.43)	14.64** (4.50)
Education: Less than primary	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Education: Primary completed	0.00 (0.05)	0.01 (0.12)	0.00 (0.00)	0.00 (0.00)
Education: Low secondary completed	0.19 (0.39)	0.31*** (0.46)	0.33 (0.47)	0.14** (0.35)
Education: General upper secondary completed	0.26 (0.44)	0.25 (0.43)	0.19 (0.40)	0.17 (0.38)
Education: Vocational upper secondary completed	0.35 (0.48)	0.31 (0.46)	0.33 (0.47)	0.48 (0.50)
Education: Some college	0.05 (0.21)	0.03 (0.18)	0.01 (0.12)	0.05 (0.22)
Education: Undergrad studies completed	0.15 (0.36)	0.08** (0.27)	0.13 (0.34)	0.16 (0.37)
Education: Graduate studies completed	0.00 (0.00)	0.01 (0.11)	0.00 (0.00)	0.00 (0.00)
Total number of observations	194	200	65	50

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 1.6. Welfare by gender

Variable	Current entrepreneurs		Potential entrepreneurs	
	Men	Women	Men	Women
HH Income	5.6e+06 (4.4e+06)	4.9e+06 (4.4e+06)	4.1e+06 (1.9e+06)	5.0e+06 (5.1e+06)
Log of income	15.26 (0.76)	15.09** (0.79)	15.13 (0.48)	15.05 (0.83)
Received any social assistance	0.39 (0.49)	0.35 (0.48)	0.30 (0.46)	0.45 (0.50)
HH social assistance received	1.3e+06 (3.6e+06)	1.5e+06 (4.1e+06)	8.4e+05 (1.8e+06)	1.4e+06 (4.4e+06)
Log of social assistance	13.12 (1.15)	13.10 (1.21)	13.04 (1.07)	13.10 (1.09)
Received any other transfer	0.04 (0.19)	0.04 (0.20)	0.03 (0.17)	0.20*** (0.40)
HH transfers from others	5.7e+05 (5.1e+06)	5.2e+05 (7.0e+06)	2.6e+05 (2.0e+06)	9.4e+05 (4.2e+06)
Log of other transfers	12.74 (0.67)	12.69 (0.52)	12.69 (0.52)	12.89 (0.87)
Minimum HH income for basic needs (UZS)	1.0e+07 (1.2e+07)	1.0e+07 (1.5e+07)	8.9e+06 (1.2e+07)	1.2e+07 (1.7e+07)
Minimum HH income for basic needs (log UZS)	15.83 (0.67)	15.78 (0.77)	15.68 (0.75)	15.84 (0.92)
Ratio of household income over minimum necessary household income	0.80 (0.92)	0.72 (0.88)	0.65 (0.67)	0.97 (1.94)
	0.76 (0.43)	0.82 (0.38)	0.83 (0.38)	0.83 (0.38)
Food insecurity last 30 days	0.18 (0.38)	0.31*** (0.46)	0.32 (0.47)	0.41 (0.50)
Asset index	0.01 (1.09)	0.00 (0.89)	-0.12 (0.94)	-0.34 (0.96)
Total number of observations	194	200	65	50

Note: HH= Household.

Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022), World Bank*

Table 1.7. Demographic characteristics of respondents in rural and urban areas

Variable	Current entrepreneurs		Potential entrepreneurs	
	Rural	Urban	Rural	Urban
Female	0.47 (0.50)	0.45 (0.50)	0.32 (0.47)	0.54** (0.50)
Age (years)	40.33 (11.47)	37.35** (12.19)	37.25 (13.65)	32.55** (10.38)
Older than 30	0.84	0.70***	0.53	0.49

Variable	Current entrepreneurs		Potential entrepreneurs	
	Rural	Urban	Rural	Urban
Adult (age 25+)	(0.37) 0.92	(0.46) 0.88	(0.50) 0.90	(0.50) 0.79
Married	(0.27) 0.75	(0.33) 0.78	(0.31) 0.83	(0.41) 0.55***
Household Size	(0.44) 6.28	(0.41) 6.07	(0.38) 6.35	(0.50) 5.31***
Has a child under 14 years of age	(2.80) 0.57	(2.79) 0.63	(2.10) 0.57	(1.94) 0.45
Number of children <14 years of age	(0.50) 1.29	(0.48) 1.27	(0.50) 1.14	(0.50) 0.86
Has a child under 5 years of age	(1.36) 0.38	(1.18) 0.43	(1.14) 0.50	(1.13) 0.27**
Number of children <5 years of age	(0.49) 0.52	(0.50) 0.58	(0.50) 0.82	(0.45) 0.32***
Village	(0.76) 1.00	(0.75) 0.00	(0.98) 1.00	(0.56) 0.00
Small city	(0.00) 0.00	(0.00) 0.37***	(0.00) 0.00	(0.00) 0.30***
City	(0.00) 0.00	(0.48) 0.63***	(0.00) 0.00	(0.46) 0.70***
Migrant	(0.00) 0.17	(0.48) 0.07***	(0.00) 0.30	(0.46) 0.10***
Years of education	(0.38) 12.41	(0.25) 12.97	(0.46) 13.05	(0.30) 14.42*
Education: Less than primary	(2.84) 0.00	(3.86) 0.00	(3.33) 0.00	(4.49) 0.00
Education: Primary completed	(0.00) 0.01	(0.00) 0.01	(0.00) 0.00	(0.00) 0.00
Education: Lower secondary completed	(0.10) 0.21	(0.08) 0.23	(0.00) 0.33	(0.00) 0.12***
Education: General upper secondary completed	(0.41) 0.28	(0.42) 0.25	(0.48) 0.16	(0.33) 0.20
Education: Vocational upper secondary completed	(0.45) 0.36	(0.43) 0.33	(0.37) 0.40	(0.40) 0.41
Education: Some college	(0.48) 0.04	(0.47) 0.03	(0.49) 0.01	(0.50) 0.05
Education: Undergrad studies completed	(0.20) 0.10	(0.18) 0.14	(0.10) 0.10	(0.23) 0.22*
Education: Graduate studies completed	(0.30) 0.00	(0.35) 0.01	(0.30) 0.00	(0.41) 0.00
	(0.00) 0.00	(0.09) 0.00	(0.00) 0.00	(0.00) 0.00
Total number of observations	152	228	53	58

Note: Standard errors in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 1.8. Welfare in rural and urban areas

Variable	Current entrepreneurs		Potential entrepreneurs	
	Rural	Urban	Rural	Urban
HH Income	5.0e+06 (4.4e+06)	5.2e+06 (4.2e+06)	3.7e+06 (2.1e+06)	5.4e+06** (5.0e+06)
Log of income	15.12 (0.76)	15.19 (0.77)	14.97 (0.60)	15.22* (0.72)
Received any social assistance	0.40 (0.49)	0.34 (0.48)	0.46 (0.50)	0.28* (0.45)
HH social assistance received	1.4e+06 (4.3e+06)	1.4e+06 (3.6e+06)	1.1e+06 (2.3e+06)	1.2e+06 (4.2e+06)
Log of social assistance	13.13 (1.14)	13.10 (1.23)	13.25 (1.10)	12.88* (1.05)
Received any other transfer	0.06 (0.25)	0.03 (0.17)	0.11 (0.32)	0.10 (0.31)
HH transfers from others	1.2e+06 (9.7e+06)	1.9e+05 (1.9e+06)	3.3e+05 (2.1e+06)	9.0e+05 (4.3e+06)
Log of other transfers	12.80 (0.84)	12.67* (0.42)	12.75 (0.56)	12.82 (0.87)
Minimum HH income for basic needs (UZS)	9.7e+06 (1.4e+07)	1.1e+07 (1.3e+07)	9.9e+06 (1.3e+07)	1.1e+07 (1.5e+07)
Minimum HH income for basic needs (log UZS)	15.72 (0.72)	15.88** (0.72)	15.73 (0.83)	15.82 (0.79)
Ratio of household income over minimum necessary household income	0.68 (0.55)	0.75 (0.90)	0.87 (1.73)	0.58 (0.38)
	0.79 (0.41)	0.79 (0.41)	0.87 (0.34)	0.85 (0.36)
Food insecurity last 30 days	0.28 (0.45)	0.20* (0.40)	0.38 (0.49)	0.34 (0.48)
Asset index	-0.23 (1.02)	0.18*** (0.95)	-0.43 (0.95)	0.07*** (0.84)
Total number of observations	152	228	53	58

Note: HH= Household.

Standard errors in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 1.9. Distribution of business outcomes

	Profits (UZS)	Revenues (UZS)	Business income (UZS)	Business assets (UZS)
Share = 0 (%)	7.37	4.18	5.40	34.60
Mean (if >0)	3.1e+06	8.5e+06	3.7e+06	7.0e+07
Std dev (if >0)	3.5e+06	1.4e+07	4.2e+06	1.2e+08
Mean log (if >0)	14.37	14.98	14.60	16.77
Exp(mean log)	1.7e+06	3.2e+06	2.2e+06	1.9e+07

	Profits (UZS)	Revenues (UZS)	Business income (UZS)	Business assets (UZS)
Std dev log (if >0)	1.34	1.49	1.05	1.80
Lower threshold (mean log - s.d. log)	13.03	13.49	13.55	14.97
Lower threshold (UZS)	4.6e+05	7.2e+05	7.7e+05	3.2e+06
Share (log < mean - s.d.)	15.31	19.20	21.83	48.01
Upper threshold (mean log + s.d. log)	15.71	16.47	15.65	18.57
Upper threshold (UZS)	6.6e+06	1.4e+07	6.3e+06	1.2e+08
Share (log > mean + s.d.)	10.44	15.68	12.50	9.95
Number of observations	372	336	378	374

Note: Standard errors in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 1.10. Business outcomes by necessity versus opportunity

Variable	Necessity	Opportunity
Log of business profit	14.28 (1.14)	14.33 (0.96)
Log of business revenue	14.88 (1.55)	14.96 (1.19)
Log of business assets	15.25 (2.21)	15.72** (2.29)
Total number of employees	2.53 (2.29)	2.77 (2.52)
Log of income from business	14.44 (1.22)	14.55 (1.00)
Number of hours worked in the last 30 days	203.27 (125.58)	212.97 (117.72)
Informal (not officially registered)	0.55 (0.50)	0.54 (0.50)
Total number of observations	173	221

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 1.11. Correlates of business outcomes

Covariate	(1) Profit (ln)	(2) Revenues (ln)	(3) Business assets (ln)	(4) Number of workers	(5) Business income (ln)	(6) Hours worked per month
Female (0-1)	-0.484***	-0.501***	-0.514**	-0.691***	-0.654***	-77.35***

Covariate	(1) Profit (ln)	(2) Revenues (ln)	(3) Business assets (ln)	(4) Number of workers	(5) Business income (ln)	(6) Hours worked per month
Small city (0-1)	(0.108) -0.0649	(0.152) 0.00101	(0.239) -0.469	(0.259) -0.765**	(0.112) -0.140	(12.28) -25.03
City (0-1)	(0.139) 0.375***	(0.194) 0.492***	(0.312) -0.321	(0.332) -0.323	(0.144) 0.309**	(15.71) -6.681
Age 30+ (0-1)	(0.119) -0.0445	(0.168) 0.0501	(0.265) 0.457	(0.288) -0.830***	(0.124) -0.215	(13.64) 20.61
Necessity entrepreneurs	(0.124) -0.191*	(0.180) -0.162	(0.281) -0.529**	(0.297) -0.272	(0.130) -0.246**	(14.05) -13.74
Education: Lower secondary	(0.108) 0.492	(0.152) 0.203	(0.240) 0.734	(0.261) -1.686	(0.112) 0.326	(12.34) -24.60
Education: General secondary	(0.567) 0.626	(0.695) 0.294	(1.250) -0.248	(1.284) -1.527	(0.547) 0.396	(60.78) -24.67
Education: Vocational secondary	(0.567) 0.429	(0.695) 0.0986	(1.249) 0.599	(1.282) -1.752	(0.547) 0.212	(60.71) -2.623
Education: Some undergraduate	(0.566) 0.835	(0.694) 1.107	(1.248) 1.581	(1.280) -0.564	(0.546) 0.683	(60.63) -45.52
Education: College	(0.623) 0.912	(0.781) 0.492	(1.360) 0.736	(1.417) -0.730	(0.612) 0.607	(67.11) 8.952
Education: Postgraduate	(0.577) 0.615	(0.715) -0.0934	(1.272) 2.891	(1.312) -1.435	(0.559) 0.161	(62.12) 145.8
Constant	(0.880) 13.91***	(1.206) 14.76***	(2.055) 15.33***	(2.098) 5.589***	(0.894) 14.63***	(99.35) 259.9***
Observations	(0.588) 360	(0.730) 325	(1.297) 363	(1.333) 380	(0.570) 366	(63.14) 380
R-squared	0.129	0.095	0.090	0.070	0.146	0.143

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 1.12. Entrepreneurs' and potential entrepreneurs' responses on selected programs

Program	Heard of the program? (percent)	Applied to the program? (% share of all respondents)	Applied to the program? (number)	Share approved applications (percent) conditional on applying	Number of approved applications
MELR subsidies (training payment)	23.1	7.4	12	40.6	5
MELR subsidies (ESC applicants)	30.9	10.7	21	42.0	11
MELR subsidies (surplus jobs)	26.2	2.8	5	19.8	1
MELR subsidies (greenhouse)	43.6	5.2	12	46.8	5
Every Family is an Entrepreneur	63.4	8.4	35	67.0	25
Youth is our Future	63.8	1.4	9	53.9	3
100,000 Women Entrepreneurs	23.2	1.2	4	18.3	1

One Million Uzbek Coders	19.3	4.8	4	85.1	2
ITWomen.Uz - 2021	18.9	2.9	1	100.0	1
Start-up Initiatives	31.6	2.3	3	85.4	2
Microcredits (vocational grads)	54.6	3.3	6	66.1	3
Joint UNDP-UNFPA	12.0	0.0	0	0.0	0
Mahallabay	45.2	6.9	22	45.9	8
Handicraft/craftsmen support	54.9	1.2	6	65.0	3
Women Notebook	77.1			9.8 ^a	57 ^a
Youth Notebook	75.6			8.5 ^a	49 ^a

Note: a. Share of the total population of respondents.
 Standard errors in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.
 Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 1.13. Rating of the programs

Program	Funding adequacy		Ease of application		Speed of delivery		Support services		Staff quality	
	Mean (1–10)	Number of respondents	Mean (1–10)	Number of respondents	Mean (1–10)	Number of respondents	Mean (1–10)	Number of respondents	Mean (1–10)	Number of respondents
MELR subsidies (training payment)	6.3	4	4.9	12	4.5	4	5.0	12	5.1	12
MELR subsidies (ESC applicants)	8.4	7	5.1	21	6.1	6	6.4	21	5.0	21
MELR subsidies (surplus jobs)	0.0	0	7.2	5	0.0	0	6.7	5	2.5	5
MELR subsidies (greenhouse)	6.9	4	6.7	12	4.9	3	7.1	12	5.1	12
Every Family is an Entrepreneur	7.3	20	6.6	35	6.8	17	5.7	35	6.1	35
Youth is our Future	0.0	0	7.7	9	0.0	0	7.9	9	7.7	9
100,000 Women Entrepreneurs	5.0	1	6.2	4	9.0	1	7.7	4	8.1	4
One Million Uzbek Coders	0.0	0	5.4	4	0.0	0	6.8	4	5.7	4
ITWomen.Uz - 2021	0.0	0	5.0	1	0.0	0	5.0	1	4.0	1
Start-up Initiatives	0.0	0	8.6	3	0.0	0	9.6	3	10.0	3
Microcredits (vocational grads)	0.0	0	3.9	6	0.0	0	4.4	6	3.8	6
Joint UNDP-UNFPA	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Mahallabay	6.6	6	6.8	22	6.4	5	5.6	22	4.8	22
Handicraft/craftsmen support	7.6	2	5.4	6	5.7	2	5.8	6	5.7	6

Note: Standard errors in parentheses. ***p < 0.01, **p < 0.05, *p < 0.1.
 Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Table 1.14. Program assessment among beneficiaries

Program	The program helped me start a business (1–5)	The program helped me increase my profits (1–5)	The program helped my household improve its conditions (1–5)	Number of responses
MELR subsidies (training payment)	2.6	2.6	2.6	5
MELR subsidies (ESC applicants)	2.4	2.8	2.9	11
MELR subsidies (surplus jobs)	1.0	1.0	1.0	1
MELR subsidies (greenhouse)	3.6	3.6	3.6	5
Every Family is an Entrepreneur	2.9	2.6	2.6	25
Youth is our Future	2.4	1.8	1.4	3
100,000 Women Entrepreneurs	4.0	4.0	4.0	1
One Million Uzbek Coders	2.4	3.3	2.4	2
ITWomen.Uz - 2021	3.0	3.0	3.0	1
Start-up Initiatives	1.6	2.2	1.0	2
Microcredits (vocational grads)	4.3	2.0	1.6	3
Joint UNDP-UNFPA	0.0	0.0	0.0	0
Mahallabay	2.3	2.0	2.2	8
Handicraft/craftsmen support	2.2	3.8	4.2	3

Note: Standard errors in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: *Entrepreneurs in Uzbekistan survey (2022)*, World Bank

Annex 2. Classification of the programs analyzed in the stocktaking.

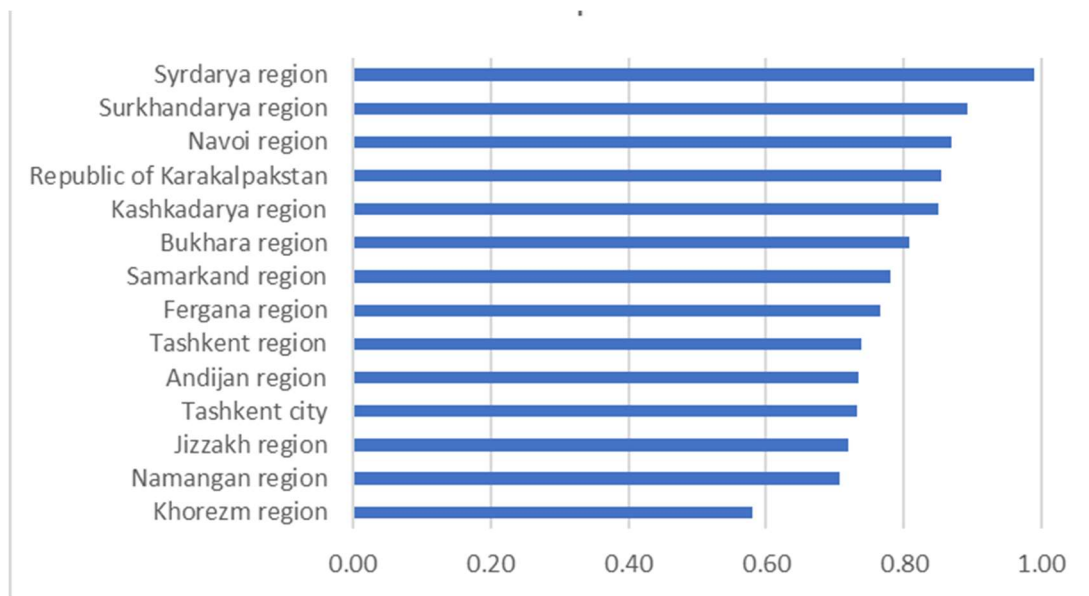
Program name	Organization who manages it	Loans	Grants	Training (vocational, entrepreneurship, IT)	Financial support for the program?	Target group
Every Family is an Entrepreneur	Regional Hokimiyats, (in collaboration with Mahalla Committees)	Yes	Yes	Vocational, entrepreneurship, IT	State budget	Priority to low-income families
Youth is our Future	Youth Union (in collaboration with Mahalla Committees, Hokimiyats)	Yes	No	Vocational, entrepreneurship	State budget	Young entrepreneurs between 18 and 30 years old
Youth Notebook	Youth Union, Ministry of Mahallas, Mahalla Committees, Hokimiyats	Yes	Yes	Vocational, entrepreneurship, IT, socioemotional, language	State budget	Youth between 18 and 30 years old
Women Notebook	Women's Committee, Ministry of Mahallas, Mahalla Committees, Hokimiyats	Yes	Yes	Vocational, entrepreneurship, IT, socioemotional, language	Dubai Foundation and state budget	Women over 30 years old
One Million Uzbek Coders	IT Park, the Ministry of Information Technology and Communications Development	Yes	Yes	Vocational, entrepreneurship, IT	State budget	Youth and adults between 12 and 45 years old
One Hundred Thousand Women Entrepreneurs	Halq Bank (in collaboration with Mahalla Committees, Hokimiyats)	Yes	No	Vocational, entrepreneurship, IT, socioemotional, language	State budget	Women
Strengthening the Resilience of Local Communities in the Aral Sea Region to Environmental, Economic, and Health Vulnerabilities	UNDP	No	Yes	Vocational, entrepreneurship, IT, socioemotional	UNDP, Government of Japan	Small entrepreneurs, unemployed
Adapting Population Skills To The Post-Pandemic Economy in Fergana Valley	UNDP, MELR	Yes	Yes	Vocational, entrepreneurship, IT	UNDP, Government of the Russian Federation	Youth, migrants, poor
ITWomen.Uz	Ministry of Information Technology and Communications Development, IT Park	No	No	Vocational, entrepreneurship, IT	State budget	Women

Program name	Organization who manages it	Loans	Grants	Training (vocational, entrepreneurship, IT)	Financial support for the program?	Target group
Start-up Initiatives	UNDP, Youth Agency	No	Yes	Vocational, entrepreneurship, IT, socioemotional, language	UNDP, State budget	Young potential entrepreneurs (especially young graduates)
Mahallabay	Agency for Working Mahallabay and the Development of Entrepreneurship, Hokimiyats	Yes	No	Vocational, entrepreneurship, IT, socioemotional	State budget	Youth, women, unemployed
Livestock Support Programs	'Uzbekchorvanasl' Agency, Regional Hokimiyats	Yes	No	—	State budget	Poor, unemployed
MELR start-up subsidies	MELR; Agency for Working Mahallabay and the Development of Entrepreneurship	No	Yes	Vocational, entrepreneurship, IT	State budget	Individuals included in all Iron, Youth, and Women Notebooks
Targeted program of social support for low-income populations in 2017–2018	MELR of the Republic of Uzbekistan	Yes	Yes	Vocational, entrepreneurship, IT	State budget	Poor, unemployed
Microcredits issued by commercial banks to the graduates of vocational colleges	Central Bank, commercial banks	Yes	No	—	State budget	Graduates of vocational colleges
Support and development of craftsmanship. Development of craftsmen	Hunarmand (Craftsman) Association	Yes	No	—	State budget	Craftspeople, apprentices, unemployed youth

Annex 3. Sampling methodology for the CAPI

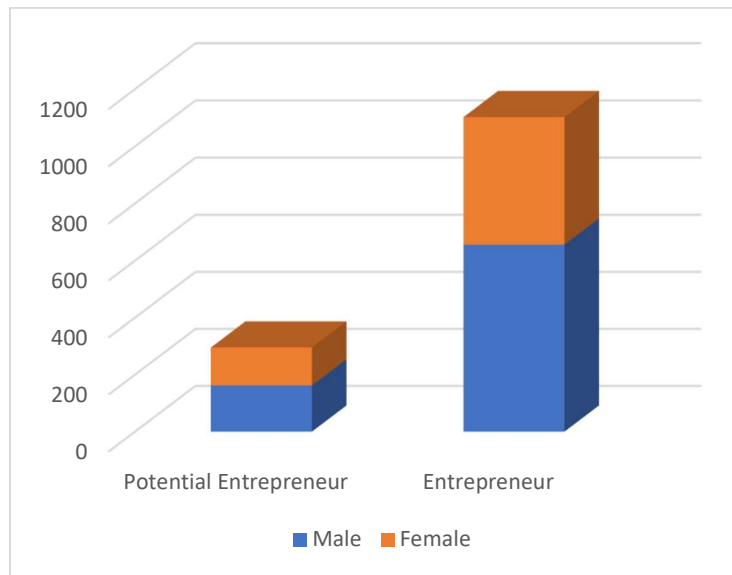
Overall, we attempted to interview 3,200 households from 140 mahallas randomly drawn from the country with probability proportional to size. Households were selected from each target mahalla with a random walk method, adjusted to account for the presence of large buildings (a methodological issue most relevant in Tashkent and the other large cities). Of all households attempted, 2,696 households (77 percent) responded to the interview. The share of respondents was highly heterogeneous across districts and regions.

Figure 3.1. Share of respondents



Among the 2,696 households responding to the survey, 1,110 qualify as target households, that is, have at least one household member who is an entrepreneur or a potential entrepreneur for the survey’s purposes. The definition of entrepreneur for the survey is “being the owner of an activity or working independently in an economic activity in the last 90 days.” The definition of potential entrepreneur is “planning to start a new economic activity within 4 months (as owner or working on it independently). By planning we mean that the respondent is currently doing one of the following: taking or seeking training for that purpose, preparing a business plan, on-the-job learning/apprenticeship, looking for financing, other concrete actions.” The average household in the sample has a size of 5.66 components, of which (on average) 0.52 (9.2 percent) are entrepreneurs or potential entrepreneurs: 0.41 (7.2 percent of the sampled population) entrepreneurs and 0.11 (2.0 percent) potential entrepreneurs. Note that the two categories are not mutually exclusive. Overall, from all of these households there are 1,397 entrepreneurs and potential entrepreneurs. Based on the preliminary household survey, where one household representative listed entrepreneurs and potential entrepreneurs from the household and their gender and age, current entrepreneurs are on average 38.1 years, compared to 36.0 years among potential entrepreneurs.

Figure 3.2. Members of respondent households



From each of the 1,110 ‘target households’, one of the members designated by the respondent as entrepreneur or potential entrepreneur was contacted for individual interview. Those members would then be asked to state whether they are current entrepreneurs or potential entrepreneurs. If one member does not consent to the interview or does not qualify as entrepreneur or potential entrepreneur, s/he would be replaced with another household member that was reported as an entrepreneur/potential entrepreneur in the screening questionnaire. We were able to reach 673 respondents, of which 562 (83.5 percent) consented to be interviewed. We then reassessed respondents’ eligibility asking them whether they are entrepreneurs or potential entrepreneurs and removing those that do not qualify (either because the economic activity listed by them and the respondent in the household questionnaire is not the same or because their plans to start entrepreneurship are not well defined).

Final data cleaning was performed to remove current entrepreneurs with firm size of 15 or more or those whose activity is exclusively for home production. Among potential entrepreneurs, we removed those who define their main activity as self-employment, to prevent double-counting. We then obtain a final sample size of **522 respondents**.

Survey weights were generated to reflect the sampling probability of mahallas into the sampling frame (drawing was made with probability proportional to size, where size was obtained from 2018 data), the probability of selection of each mahalla (based on the number of households in the mahalla reported by mahalla leaders to the survey firm), the probability of selection of target respondents (since one target respondent was randomly drawn from each household), and a modeling of the probabilities of responding to the survey.

Annex 4. Summary of selected programs

1. Every Family is an Entrepreneur

Main characteristics

Every Family is an Entrepreneur is the largest national economic inclusion program in the country. The program started in 2018 and covered over 600,000 beneficiaries in 2018–2021, with a budget of UZS 15 trillion, of which UZS 9 trillion was allocated for 2021. It provides soft loans, delivers assets, and offers trainings to help beneficiaries start or improve their businesses, especially those in remote and rural areas and those operating in the agricultural sector. The loans mainly finance small entrepreneurs active in poultry farming, livestock and rabbit breeding, beekeeping, vegetables and fruit cultivation, confectionery, and sewing. They also finance the construction of green houses.

Funding is allocated by the Ministry of Finance, based on the reports from regional khokimiyats about the number of applicants in the previous month. Allocated funds are transferred to the account of regional hokimiyats in the banks opened specially for this program.

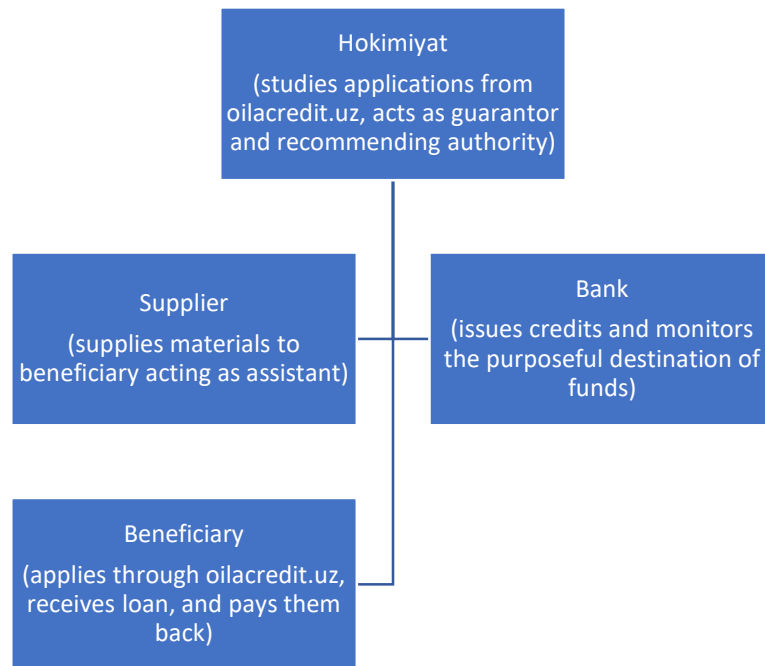
Up to February 2022, entrepreneurs and potential entrepreneurs submitted their loan applications to the district hokimiyats. Starting March 2022, they apply through the platform oilacredit.uz. The hokimiyats act both as recommending authorities for the banks to issue soft loans and as guarantors for the loans. Loans are issued by three commercial banks (Halq Bank, Agrobank, and Mikrocreditbank), with a 14 percent interest rate.

How the program works

Hokimiyats and centers supporting family entrepreneurship identify the families willing to engage in family entrepreneurship and select them to participate in the program. Potential beneficiaries cannot have outstanding preferential loans and must have a good debt history. Low-income families are prioritized. Centers provide consultations to families on how to organize entrepreneurial activity and prepare documents to register family businesses. Much of the information is gathered through the dispatchment of hokim's assistants from the district khokimiyats to the mahallas throughout the country.

After this initial assessment, selection, and assistance, beneficiaries apply through the platform oilacredit.uz. In this phase, they must document the planned obtainment, through regular contracts, of the necessary input and physical capital from approved suppliers. Regional hokimiyats monitor the applications and recommend and guarantee for beneficiaries for commercial banks to issue the loans.

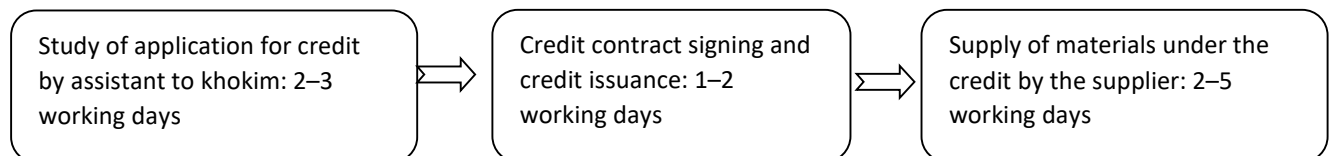
Figure 4.1. Scheme of interaction of stakeholders in ‘Every Family is an Entrepreneur’ program



At this point, the procedures for the registration of the businesses and the training of the beneficiaries start.

The economic activities most frequently supported work in the sectors of poultry farming, livestock breeding, rabbit breeding, sewing, beekeeping, construction of greenhouses, vegetables and fruits growing, and confectionery.

Figure 4.2. Timeline of financing under the ‘Every Family is an Entrepreneur’ program



Agrobank, Mikrocreditbank, and Halq Bank are the main financial institutions involved in the program, acting under the direction and monitoring of the Uzbek Central Bank. These three banks issue loans with a 14 percent interest rate, which are repaid by beneficiaries with monthly payments, after an initial grace period that can range from 6 months to 1 year. Monitoring of credits payback is performed by the employees of commercial banks along with the representatives of khokimiyats and mahalla committees.

The loans are issued with amounts varying as follows:

- Up to UZS 33 million to individuals with entrepreneurial initiative based on the recommendations of hokim’s assistants assigned to each mahalla.
- Up to UZS 225 million to registered small businesses, based on the recommendations of the hokim’s assistant. Registered small businesses also have to satisfy additional requirements, such

as guarantees from third parties, underwriting of insurance policies, provision of collateral, pledge of the property purchased with the loan issued, and other types of guarantees required by law.

- Above UZS 225 million to businesses engaged in investment projects, with the endorsement of the hokim's assistant responsible for the area. Such businesses are also required to provide collateral and guarantees.

The Chamber of Commerce and Industry provides entrepreneurship as well as vocational training courses, the latter varying depending on the activity the beneficiary families are going to be engaged in (for example, livestock breeding, agriculture, baking, car repair, production of dairy products). The training courses are held in the training centers of the ESCs or vocational colleges and can last from 2 months up to 1 year depending on the specialization. Mentoring and coaching are not provided under the program. Exhibitions of equipment and machinery that can be adopted by local businesses are regularly organized in districts and cities.

The businesses financed by the program can also be established in free economic zones instituted by the government to further promote entrepreneurship.¹⁴ Any program beneficiary wishing to start business in free economic zone is eligible. However, free economic zones require working only in the territory of free economic zone, which can be inconvenient.

The program is still active and is widely considered as successful.

2. Youth is our Future

Main characteristics

The program was launched on July 1, 2018, and targets youth between the ages of 14 and 30. The geographical coverage of the program was the whole country with focus on areas with high young labor supply.

Under the program, the Youth Union of the Republic of Uzbekistan managed the 'Yoshlar Kelajagimiz' ('Youth is our Future') fund, established out of the state budget to issue preferential loans through commercial banks.

The program also instituted 'Yosh tadbirkorlar' ('Young entrepreneurs') coworking centers and 'Yoshlar mehnat guzari' ('Youth labor') complexes for youth to realize their ideas, favor the development of start-ups, participate in seminars and master classes, and receive consulting services.

Details

The fund financed the issuance of loans and the leasing of property through commercial banks (JSB Halq Bank, JSCB Mikrokreditbank, and JSCB Agrobank) to beneficiaries for the implementation of business initiatives, start-ups, ideas, and projects. Unemployed youth, especially youth registered in the Youth Notebook, were eligible to apply for the program.

The interest rate on the loans was kept at a 7 percent level until December 31, 2019. Starting from January 1, 2020, it was reset at the refinancing rate of the Central Bank of the Republic of Uzbekistan and from

¹⁴ Their activity in free economic zones is regulated under the Decree of the President of the Republic of Uzbekistan No.PP-55 dated 20 December 2021.

January 1, 2021, on market terms determined by commercial banks in coordination with the Central Bank of Uzbekistan.

The fund, through hokimiyats, also acted as a guarantor for loans for an amount not exceeding 50 percent of the total loan value.

The fund could directly participate in the entrepreneurial projects implemented under the state program for an amount not exceeding 50 percent of their value, effectively acting as a co-investor and acquiring stakes in the projects. The fund can then sell its share within 5 years.

Other activities financed under the program included the following:

- The purchase of up to 20 young poultry and rabbits, 5 heads of small cattle, and 2 cattle for households with unemployed young people with relevant skills. The cost of the purchase had to be refunded within a stipulated period. Assistance in their breeding and subsequent sale was also provided.
- Provision of sewing machines, electric stoves, greenhouses, and other assets to youth registered in the Youth Notebook.
- Provision, to youth registered in the Youth Notebook, of 1 ha of land plot either from the reserve fund of the hokimiyats or from the lands of leasehold farmers, after the harvesting of wheat, for secondary cropping.
- Training or retraining, in cooperation with the Chamber of Commerce and Industry, of youth for professions that are in demand on the labor market as well as business skills trainings. Trainings were carried out either at the premises of the mahalla committee, or at monocenters of ESCs, or any other convenient premises.

The program also instituted ‘Yosh tadbirkorlar’ coworking centers, under public-private partnerships, providing young entrepreneurs with premises, office equipment, durable goods, and internet access. They also offered other assistance in realizing business initiatives, start-ups, ideas, and projects. The assistance helped youth with the development of business plans, legal and accounting advisory, among others. Forums, master classes, and seminars were organized for beneficiaries to attend.

The program also offered trainings in entrepreneurship and business skills, besides vocational trainings, in cooperation with the Chamber of Commerce and Industry and other associations.

A total of 500,000 young people were involved in the program in 2021.

The ‘Yoshlar Kelajagimiz’ fund was closed in 2021 for a reorganization of the Youth Agency activity and its funds were transferred to the Youth Agency.

3. One Million Uzbek Coders

Main characteristics

The program was launched in November 2019. Its main goal is to provide quality and affordable IT education to a wide spectrum of beneficiaries, targeting individuals between the ages of 12 and 45, creating a new generation of IT specialists.

The program instituted IT parks, which are complexes of facilities, buildings, and structures where IT training centers and IT companies can become residents and enjoy a zero corporate tax, no custom payments for imports, low social payments, and a 7.5 percent income tax. Resident companies can access the IT market for contracts, job applicants' profiles, a dataset of IT companies in the country, and scientific and educational organizations. IT parks provide access to a series of services—accounting, legal, marketing, and educational support, among others.

The program pays 75 percent of the costs for three-month training in programming, held at IT parks. It can rise to 100 percent if the participant is registered in the Youth Notebook. One Million Uzbek Coders trained 500,000 beneficiaries as of August 2021 and is still active.

Details

The program has been modeled around a similar intervention in the United Arab Emirates. The project in Uzbekistan is implemented by IT park, the Ministry of Information Technology and Communications Development of the Republic of Uzbekistan in cooperation with the Dubai Future Foundation, Inha University in Tashkent, IT Academy at IT park, and Muhammad Al-Khorasmiy IT School.

Any person between the ages of 12 and 45 can apply for the program regardless of gender, disability, place of residence, marital status, or income level. Participation of youth registered in the Youth Notebook is often encouraged.

The aim of the program is to train a generation of digital professionals, equipping them with IT and programming skills. Graduates may also have a mentor if they wish to start IT business after graduation. Mentors help them start an IT business and advise on how to run the new business.

The course, consisting of 120 hours of training, gives participants the skills necessary for four highly in-demand careers in the global job market: data analytics, Android development, frontend development, and full stack development. Graduates receive graduation certificates and can obtain loans for the purchase of personal computers.

High-achieving graduates are able to compete for grants provided by Dubai Foundation and continue their studies in one of the more than 100 nanodegree programs on the Udacity platform, which are recognized by the main international actors in the IT industry.

The program is active and considered promising. The government plans to integrate the courses into informatics curricula of schools, from 5th to 11th grade, forecasting to reach 2,250,000 people in the 3 years spanning from 2020 to 2022.

4. 100,000 women entrepreneurs

Main characteristics

Started in June 2021, the program targets women between the ages of 18 and 30 and plans to reach 100,000 beneficiaries.

Under the program women can undergo free training, get help in preparing business plans for potential businesses (free of charge), obtain loans (collateralized or not), and access consultancy services and employment opportunities. The project provides for the creation of a bank of ready-made business plans for various types of activities, tailored to the specific socioeconomic potential and features of each region,

and the organization of master classes and training courses (for example, on entrepreneurship, confectionery, hairdressing, cooking). Applications for loans under the program are considered by a commission chaired by the Chairperson of the Senate of the Republic of Uzbekistan.

Details

The program is mainly operated through the Halq Bank, the largest bank of the country, which manages the funds allocated by the Ministry of Finance.

A commission including four representatives of government institutions and agencies and one representative of the Halq Bank evaluates the issuance of loans, on the basis of applications received by regional representatives of the same bank. Applications are submitted with recommendations from women specialists of hokimiyats and mahalla committees. The soft loans are issued with a 14 percent interest rate, for sum up to UZS 33 million.

There are four categories of women, who are eligible for the program.

1. Women who want to be engaged in entrepreneurship but face difficulties in choosing the sphere of business, as they are not specialized in a particular area. They are provided with entrepreneurship and vocational training in the interested field. They receive sample business plans and are assisted in preparing their own business plan by mentors. Then they are given soft credits.
2. Women who are already sufficiently skilled in certain specialty. They are offered sample business plans, receive entrepreneurship training, and are advised on the opportunities in the region and the available demand. Finally, they are given soft credits.
3. Women entrepreneurs. They are supported in developing existing business ideas and expanding of their business, offered sample business plans, advised on regional specialization (what is a certain region specialized for and what kind of business opportunities are available and in demand), and finally are issued soft credits.
4. Women not yet willing to be engaged in entrepreneurship but willing to be employed by entrepreneurs—they are interviewed to reveal their interests, offered trainings in monocenters 'Ishga Markhamat', provided apprenticeship in big enterprises, and are offered employment opportunities not far from their place of residence.

In the sample of the women registered in the Women Notebook, 68,281 received soft loans and of them, 49,091 were trained under the program in 2021.

The fate of the program is unclear, but there is no clear evidence from national and local authorities that the program has been closed yet.

5. ITWomen.Uz

Main characteristics

The ITWomen.Uz program started in February 2021. The goal of the program is to train girls and women about modern technologies, increase their computer literacy, teach them to create mobile applications and websites, and teach them the basics of computer design, thus laying the foundation for the full use

of information technology in their work and providing start-up support in the sphere of information and communication technology (ICT).

Details

The ITWomen.Uz project is organized by the Ministry of Information Technology and Communications Development of the Republic of Uzbekistan, IT park in cooperation with the Ministry of Mahalla and Family Support, Tashkent Muhammad al-Kharasmiy University of Information Technology, Amity University in Tashkent, and Inha University in Tashkent. The project is sponsored by Uzcard (interbank payment system serving all cards in Uzbekistan issued by commercial banks to their clients).

IT parks hold trainings at their premises with participation of IT park specialists and university professors. The main goal of the project is to provide women with training and employment opportunities in the IT sector. Beneficiaries are largely selected from the Iron, Women, and Youth Notebooks by mahalla committee specialists.

As part of the first phase of the project, courses were organized for girls and women under the age of 35 included either in the Women Notebook or in the Youth Notebook. They attended the courses daily, from February 15 to March 5, 2021, in IT parks all over the country. Of these, 1,228 girls and women successfully completed the courses.

Starting March 17, 2021, the second phase of the ITWomen.Uz 2021 project was launched and 1,100 girls and women were trained offline and online in computer literacy, e-commerce, and entrepreneurship. Trainings were provided by the specialists of the responsible authorities and representatives of the participating universities.

The third stage of the project started in April 2022, offering online and offline trainings by university professors in IT parks across the country in the following specialties: computer literacy, mobile application and website development, and web design. Psychological training is also provided. The graduates are given certificates and the most successful graduates are provided with prizes. Women willing to start an IT business are provided with mentoring and support.

6. Start-up Initiatives

The Start-up Initiatives program was launched in 2016 to support youth's innovative ideas and start-up projects, providing them opportunity to test their innovative ideas, assess their start-up projects, and develop their skills and capacity in the field of entrepreneurship.

The assessment of the applications is carried out online through Google platform. The program supports various projects with grants in the amount of UZS 50 million as well as training in IT and entrepreneurship. All the phases of the development of the new business are closely monitored. If at any stage of implementation the start-up project is deemed to be inefficient or inadequate, further financing is stopped.

Youth above 16 years, entrepreneurs, inventors, students, researchers of higher educational institutions, graduates of vocational colleges, and academic lyceums are eligible to participate in the program.

While no data are available for 2016 and 2017, in 2018 1,253 people with 510 start-up projects have been admitted, in 2019 the projects increased to 648, while in 2020–2021 1,972 participants with 905 projects were admitted.

Details

The program was actually adapted from Moscow initiatives development fund and Higher School of Economics of Russian Federation by UNDP program coordinator.

Initially, the project worked with universities in Tashkent because start-up and innovative projects mostly come from talented people who are students. Therefore, the project aimed at, focused on graduating courses, 3rd and 4th year of bachelor or 1st and 2nd year of master students of higher educational institutions in Tashkent. The program is run once in a year. The first cycle was in 2016 and it was focused only on universities in Tashkent, where about 27 universities in Tashkent were covered. The second cycle covered regional universities as well, but participants were invited to Tashkent. In the third cycle, the program was already implemented in the regions, with focus on Fergana Valley, the Aral Sea region, the South and the middle of Uzbekistan, where spots were arranged and participants from the neighboring regions were invited to the spots. In the fourth and the fifth cycles, particularly the fifth cycle, the program completely worked online because of the pandemic.

The program is aimed at teams of young girls or having young women as a member of the team. The teams can be formed of students or students and professors. The Youth Agency and the Ministry of Mahalla provide data on young women and men. Any young women or teams can apply. Out of the applications, UNDP in cooperation with the representatives of the Youth Agency select the best start-up ideas and invite them for training. UNDP developed particular training programs based on this Russian institution's programs, and there are about 14 training programs with more than 500 slides. First, trainings are aimed at how to validate the idea, how to access the market, and the customer (the largest module of the training). Afterward, Link Start-up methodology is used. Following trainings are aimed at metrics of market assessment. The last three modules are on intellectual property, how to protect them legally, and what types of intellectual property are in Uzbekistan as well as legal and tax status of entrepreneurship entities in Uzbekistan—that is a separate training as well. Then, before the last training, there is an art of public speaking program. UNDP teaches students how to make speeches and how to prepare presentations. Apart from that there are mentorship sessions and master classes, where successful IT entrepreneurs or start-up entrepreneurs are invited to provide one hour training to program participants. Additionally, there are mentors and experts available for program participants to assist them during the development of their start-up projects. The final stage is demo day, when participants present their start-up projects in front of the commission, comprising UNDP program coordinators, specialists from IT park, and successful entrepreneurs. About 40 percent of the initial cohort of participants reach the final stage, that is, demo day. That means the remaining ones still need more training to present their idea or in some cases change the idea. As for other participants, even if they do not reach the demo day, they are still benefiting from the program. The most successful start-up teams after demo day are provided with seed grants in the amount of US\$5,000 for implementation of their projects. Targeted grant funds in the amount of UZS 1.0 billion were allocated by the Yoshlar-kelajagimiz Foundation and US\$100,000 by a joint project of the UNDP and the MELR 'Promoting Youth Employment in Uzbekistan'.

How is the work of the program organized?

The support program is carried out in three stages. Based on the results of each stage, an evaluation of the project team's work is conducted.

Stage 1: The first month is educational—seminars, master classes, and round tables with experts of the region. Attendance of events is obligatory for participants.

At this stage, you will receive basic knowledge of the methodology and tools for starting and developing start-ups, become acquainted with successful practices, get to know the market better, evaluate your project, and identify mistakes and weaknesses of the project, and will formulate goals and a plan of action for the project in the near future.

Expected result:

Evaluation of the project and the market potential, mastering the methods of traction, the idea of the project developed, and an individual plan for project implementation - 'roadmap'.

Stage 2: The second month assumes intensive independent work of the project team together with the tracker and periodic face-to-face meetings with experts. Includes hypothesis testing (interviews and surveys), market research, validation of the project value, definition of the target audience, and formation of the business model using a traction map. The project team is assigned a business mentor (tracker) who works with the team on a weekly basis and helps them work through the individual plan and implement the project, keeps the focus on the result, and at the end of each calendar week evaluates the results achieved.

At the end of this phase is an interim project 'defence'. Teams that fail to validate value of their project drop out of the program.

Expected result:

The project traction map was created, the target audience was identified, the value of the project was confirmed, and the viability of the business model was formulated.

Stage 3: The third month is dedicated to the development of the minimum working (viable) model of the project (MVP) and optimal packaging of the value proposition. Also, this phase will include testing, defining the customer acquisition, activation and sales strategy, establishing contacts with potential partners, working with metrics, conversion rates, and finances of the project.

Expected result:

A roadmap for the project for the coming year is developed, the business model is clarified, and a strategy for attracting investment and scaling is defined.

Finals. Teams that make it to the finals will present their projects to investors and experts at the final 'demo day'.

What format will be used for working with projects?

The Start-up Initiatives support program has several formats for working with projects:

- Lectures, seminars, trainings, workshops, and thematic meetings with experts on the following topics:
 - Idea, team
 - Lean start-up and customer development methodologies

- Hypotheses, focus
- The value proposition and the minimum product
- Market, sales channels, target audience
- Sales strategies, pricing, and positioning
- Metrics, monetization, and project finances
- Accounting, taxation, legal aspects;
- Trends and goals, capital growth
- Strategic plan and scaling.

A total of at least 36 hours (about 12 sessions of 1–2 hours)

- **Meetings with the tracker.** Weekly meetings with an individual business mentor who helps the team plan the development of the business and assesses the results achieved by the team. The project team’s independent work with trackers and experts in the program allows it to test hypotheses, find client segments, validate demand for the project, learn how to work with sales channels, and model and calculate the economics.
- **Saturday group ‘traction meetings’.** Weekly mandatory group reporting meetings with trackers. Every Saturday, the project team will meet with their tracker and a group of experts, check the results, and adjust the development plan. The meetings will also discuss the results of the work done and exchange ideas, advice, and constructive criticism.
- **Group master classes.** The master classes will cover success stories of domestic start-ups, legal and tax issues, working with the media, building business-to-business and business-to-customer sales, methods of collection and analysis of metrics in the project, issues related to intellectual property and accounting, presentation skills, and so on.
- **Individual consultations.** Meetings with business practitioners (mentors) will help start-ups. The program also has a mentor program, which helps with marketing, sales, teamwork, product development, economics, and other areas.

The project is almost completed and is subject to approval by the Youth Agency and the Ministry of Innovative Development of the Republic of Uzbekistan.

7. Strengthening the Resilience of Local Communities in the Aral Sea Region to Environmental, Economic, and Health Vulnerabilities

The program was a joint UNDP and UNFPA effort carried out between January 2020 and June 2022, under the financial support of the Japanese Government. It had two distinct components.

The first one, which was implemented by UNFPA, consists of a campaign aimed at improving the quality of medical services, with a focus on maternal, child, and reproductive health. Four pilot districts in Karakalpakstan have been provided with cervical cancer and breast cancer testing equipment.

The second component was implemented by UNDP with a budget of US\$3.2 million and was specific for the Aral Sea region. It aimed at increasing income-generating opportunities in rural areas and access to basic services and infrastructure (for example, access to clean drinking water, electricity, medical care, and education). The program provided grants to participants over the age of 18 to realize business

projects, conditional on the approval by a selection commission. It also provided brief 2–3 days training on the manufacture of products. The commission assessed the business plans received from the applicants and either approved them or returned them for further improvement. Equipment under the approved grants was purchased by UNDP. The applicants must belong to one of the following categories: people living in rural areas, people directly affected by natural disasters, unemployed, women, and youth. In 2020–2021, 33 business initiatives were supported under the program, providing employment for over 90 people.

During the post-pandemic, the program also worked on mitigation measures and raised awareness on how to be protected to the extent possible from the consequences of a pandemic.

8. Adapting population skills to the post-pandemic economy in Fergana Valley

The project is a joint initiative of the MELR of the Republic of Uzbekistan and UNDP. It was launched in 2021. The project contributes to poverty reduction by increasing employment and entrepreneurship opportunities in the Fergana Valley. The program focuses on 18+ youth and aims at building entrepreneurship skills among students and job seekers by providing entrepreneurship trainings of 40–60 hours. It also helps the establishment of new businesses through soft loans. It targets college and university graduates, young women and men in informal employment, returning migrants, and other vulnerable groups. Hokimiyats and mahalla committees provide information regarding beneficiaries.

9. Mahallabay

The Mahallabay program started in December 2021 and is intended to study the needs of people in mahallas. The program is implemented by the assistant to the khokim in each mahalla, who is in charge of keeping track of people living in the mahallas and assess their needs. In particular the assistant evaluates the demand for training or retraining to find employment and the need for support to start or improve their small businesses. The need for useful infrastructure is also assessed (for example, kindergartens).

Based on the information, the program provides trainings, loans, grants, and employment opportunities for the local population. It sometimes promotes public-private partnerships to provide services at an advantageous price for some population categories (for example, low-priced kindergartens for low-income parents). It also makes infrastructural improvements in the area, according to the needs.

Responsible authorities: Ministry of Economic Development and Poverty Reduction of the Republic of Uzbekistan and Agency for Mahallabay.

10. Livestock support programs

Started in 2022, the program includes the provisions of soft loans to support businesses involving livestock breeding, silkworm breeding, poultry farming, and beekeeping. The program will grant loans worth US\$620 million: US\$120 million from the government budget and US\$500 million from international financial institutions. Additionally, subsidies and custom and tax benefits will be granted. The program will also provide short-term trainings for farmers and covers the whole country.

Responsible authorities: ‘Uzbekchorvanas’ Agency under the State Committee of Veterinary and Livestock of the Republic of Uzbekistan, khokimiyats of the regions, and mahalla committees.

11. MELR start-up subsidies

The program was initiated by the Ministry of Employment of the Republic of Uzbekistan.

The program provides subsidies for unemployed individuals registered with ESC who wish to start a business. The program also provides for the payment of registration fees as individual entrepreneurs and the costs for the state registration of small enterprises and micro-firms.

If any beneficiary of the program obtains a loan, the fees for the connected insurance policy would be covered.

Subsidies are also provided to businesses for the installation of light green houses; purchase of seeds, seedlings, and irrigation equipment; and hiring of people belonging to groups deemed as socially vulnerable (for example, parents with young children, persons with disabilities, young graduates from secondary education institutions).

The program delivers entrepreneurship trainings to beneficiaries to give them the necessary knowledge to successfully start a business, besides the material means.

In addition to that, the MELR instituted the monocenters with the support of ADB and ILO, which provide professional training to people in certain secondary vocational specialties.

The Ministry of Finance also introduced the subsidies for applicants to cover 75 percent of training costs if they study in private training centers. Subsidies are provided in the amount of UZS 30 million.

12. Targeted program of social support for low-income populations in 2017–2018 as part of the decree of the Cabinet of Ministers of the Republic of Uzbekistan No. 877 dated October 28, 2017

The program is annual and implemented by the MELR of the Republic of Uzbekistan under the state order for creation of job places and specialists' preparation considering current and potential needs of the labor market.

The program also includes beneficiaries of Public Works Program. Preliminary needs in establishing job places are calculated on the basis of determination of the number of jobs required to establish new production facilities or expand the existing production facilities, introduction of new service facilities, construction of new housing, social facilities, increase in agricultural production, and implementation of investment projects and 'roadmaps'. Based on the data received from local authorities, the MELR and the Ministry of the Economy ensure that, by October 20 of the year preceding the forecast year, the state order for job creation is considered and included in the draft State Employment Promotion Program in accordance with the established procedure.

Responsible authorities: MELR of the Republic of Uzbekistan, regional and district authorities, and mahalla committees.

Age limit: 18+

Geographical coverage: Whole country

Beneficiary coverage: Unemployed population of Uzbekistan (837,000 people in 2017, 1,368,600 people in 2018, those are officially registered as unemployed).

13. Microcredits issued by commercial banks to the graduates of vocational colleges

The program was initiated by the Central Bank in 2016. According to the regional authorities, it was launched in 2017 and terminated in 2018 with the reorganization of colleges.

Under the program, banks issued microcredits in national currency to graduates of vocational colleges of Uzbekistan, either registered as individual entrepreneurs or owning a share of 50 percent or more of the authorized capital of a legal entity, provided that not more than 3 years had passed since graduation from vocational colleges.

Credits were issued with 7 percent interest rate under the guarantee of khokimiyat with a repayment period of either 12 months, 2 years, or over 3 years. Commercial banks issued the credit in 3 working days and performed monitoring till the termination of the credit contract.

Responsible authorities: Central Bank and commercial banks.

Beneficiary coverage: Graduates of vocational colleges, over 400,000 people according to KII responses.

14. Support and development of craftsmanship. Development of craftspeople

The program was initiated in December 2021, deriving from a similar previous program carried out in 2019. The program promotes the development of crafts and includes the organization of ‘Craft fair Uzbekistan’, an international annual fair of handicraft products and technologies at the pavilions of Uzexpocentre, in Tashkent. After the approval of a business plan, the program provides soft loans for business development, subsidies for training, promotion, purchases of raw materials, and equipment. It is targeted to individuals from low-income household. A business plan is a prerequisite.

Responsible authorities: Chamber of Commerce and Industry, Khunarmand Association, Council of Ministers of the Republic of Karakalpakstan, and hokimiyats of the regions and Tashkent city.

15. Youth Notebook

The Youth Notebook is a register where vulnerable young adults between the ages of 18 and 30 are included. It was instituted by the GoU in August 2020 to identify and monitor the issues concerning the young adults of the country and support them on a path toward economic security. Young people requiring social protection, economic support, or psychological assistance and unemployed youth are eligible. It is financed out of government budget through the Youth Support Fund, which was established for this purpose.

Unemployed youth apply to the district or city employment center. Registered youth are presented with vacancies suitable for their profession and specialty. Vocational trainings are provided in non-state-owned training centers, with the costs being covered by grants. Other types of support include subsidies for purchase of seeds and seedlings or other income-generating assets, payment for educational contracts, psychological support, and payment of 30 percent of the rent costs for nonresidential premises for up to 12 months.

Responsible authorities: Ministry of Finance, Youth Union, Ministry of Mahalla, local hokimiyats, and mahalla committees.

Age limit: 18–30

Geographical coverage: Whole country

Beneficiaries’ coverage: No limit.

16. Women Notebook

The Women Notebook was instituted in August 2020 to support women in need. It covers women ages 30 and above. Types of support provided for women are employment, support in opening business, lumpsum support for women with disabilities, financial support for income-generating agricultural activity for women having children with disabilities, medical support, housing support, and so on. Eligibility criteria for women to be included into the Women Notebook: unemployed women, women in need and willing to start their business, low-income women who lost breadwinner, women with disabilities, low-income women in need for housing, and low-income women having children with disabilities. Currently, the notebook is in the process of digitalization.

This notebook identifies socially disadvantaged women and help them with their material and social problems: women who have difficult family situations, are not active, are unemployed, and need medical assistance and psychological and legal support. The main aim of this direction (programme) is helping them find their place in public life, stabilize their opinions in politics and in life, increase their self-confidence; training in vocational institutions; and improving their skills.

Annex 5. Definition of key variables analyzed in the survey.

Entrepreneur: Someone who answers yes to the following question: “Do you own an economic activity/business or have you been self-employed (e.g., taxi services, barbers, plumbers, lawyers) in the last 90 days?”

Economic activity: “An economic activity can be any small or large independent activity either producing, processing or selling agricultural or non-agricultural product (e.g., farm, bar or restaurant, street food vendor, retail store, wood products producer or seller...); it can also be any independent activity that provides services (taxi services, barbers, lawyers, midwives, masons...), meaning that most self-employment activities are included in our definition.”

Potential entrepreneur: Planning to start a new economic activity within 4 months (as owner or working on it independently). By planning we mean that the respondent is currently doing one of the following:

- Taking specific training
- Seeking specific training
- Preparing a business plan
- Learning on the job/doing an apprenticeship
- Looking for/obtaining financing
- Buying or obtaining the necessary equipment or taking steps to do it
- Started talking or taking action to obtain, buy, rent, or prepare the venue for the activity
- Stipulating formal or informal contracts (for example, hiring personnel or forming a society with other people) for the future activity (specify).
- Other concrete actions (specify).

Subsistence entrepreneur. We identify subsistence entrepreneurship through a preference elicitation method, whereby the respondent is asked to make a hypothetical choice between a grant for entrepreneurship support and a job as a wage employee. Based on the answers we can classify the minimum size of an entrepreneurship grant that makes the respondent indifferent between entrepreneurship and wage employment. The higher the value, the more likely the respondent values wage employment over entrepreneurship. We then classify as ‘subsistence entrepreneurs’ those who weakly prefer wage employment to a UZS 2 million grant for entrepreneurship.

Socioemotional skills indexes

Personal Initiative. It involves making decisions and actions with a long-term horizon in mind, wherein someone is not just reacting to a problem but also reflecting on future actions that may prevent such a problem.¹⁵ It is characterized as a syndrome as it is a result of reoccurring behaviors that together constitute initiative. If someone’s behavior in an organization considers the organization’s mission, has a long-term focus, is goal and action oriented, is resilient to setbacks, and is self-starting and proactive, it is said to constitute personal initiative. We use all six questions regarding self-reported initiative from this literature and do not use any of the seven questions regarding passivity.

¹⁵ Frese, Fay, Hilburger, Leng, and Tag 1997.

Question	Included in the survey (Y/N)
I actively attack problems.	Y
Whenever something goes wrong, I search for a solution immediately. Whenever there is a chance to get actively involved, I take it.	Y
I take initiative immediately even when others do not.	Y
I use opportunities quickly to attain my goals.	Y
Usually, I do more than I am asked to do.	Y
I am particularly good at realizing ideas.	Y
At the moment, it is not useful to make any plans	N
I will be able to manage without making any career plans.	N
It is still too early to make plans for my future career.	N
My occupational maxim is: let us wait and see.	N
It is no good to actively start to change my occupation now.	N
In the present situation it is useless to implement career plans.	N
I only make plans when I know what is going to happen in the future.	N

Generalized Self-Efficacy. It involves one's estimation of one's capabilities to channel motivation, cognitive resources, and courses of action that can aid toward controlling the events in one's life.¹⁶ At its core, it is a self-evaluation and is one of the two components (the other being self-worth) of self-esteem. The GSE scale we used included eight items.

Question	Included in the study (Y/N)
I am strong enough to overcome life's struggles.	Y
At root, I am a weak person. (r)	Y
I can handle the situations that life brings.	Y
I usually feel that I am an unsuccessful person. (r)	Y
I often feel that there is nothing that I can do well. (r)	Y
I feel competent to deal effectively with the real world.	Y
I often feel like a failure. (r)	Y
I usually feel I can handle the typical problems that come up in life.	Y

Note: (r) indicates reversed scale for standardization.

Locus of Control. LOC is the extent to which people believe that they have control over their own fate and environments. Individuals with high internal LOC believe that they are the masters of their own fate; they are confident, alert, and direct in attempting to control their external environments.¹⁷ We adapt and use four questions from the literature.

¹⁶ Source: Feldman, Gilad, Jiing-Lih Farh, and Kin Fai Ellick Wong. 2018. "Agency Beliefs Over Time and Across Cultures: Free Will Beliefs Predict Higher Job Satisfaction." *Personality and Social Psychology Bulletin* 44 (3): 304–317.

¹⁷ [Levenson Multidimensional Locus of Control Scales – OSF.](#)

Question	Included in the study (Y/N)
1. Whether or not I get to be a leader depends mostly on my ability.	Y
2. To a great extent my life is controlled by accidental happenings.	N
3. I feel like what happens in my life is mostly determined by powerful people.	N
4. Whether or not I get into a car accident depends mostly on how good a driver I am.	N
5. When I make plans, I am almost certain to make them work.	Y
6. Often there is no chance of protecting my personal interests from bad luck.	N
7. When I get what I want, it is usually because I am lucky. (Reverse-coded)	Y
8. Although I might have good ability, I will not be given leadership responsibility without appealing to those in positions of power.	N
9. How many friends I have depends on how nice a person I am.	N
10. I have often found that what is going to happen will happen. (Reverse-coded)	Y
11. My life is chiefly controlled by powerful others.	N
12. Whether or not I get into a car accident is mostly a matter of luck.	N
13. People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.	N
14. It is not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.	N
15. Getting what I want requires pleasing those people above me.	N
16. Whether or not I get to be a leader depends on whether I am lucky enough to be in the right place at the right time.	N
17. If important people were to decide they did not like me, I probably would not make many friends.	N
18. I can pretty much determine what will happen in my life.	Y
19. I am usually able to protect my personal interests.	Y
20. Whether or not I get into a car accident depends mostly on the other driver.	N
21. When I get what I want, it is usually because I worked hard for it.	Y
22. To have my plans work, I make sure that they fit in with the desires of people who have power over me.	N
23. My life is determined by my own actions.	Y
24. It is chiefly a matter of fate whether or not I have few friends or many friends.	N

For each of these indexes (PI, GSE, and LOC), we do not include the fully standardized set of questions based on the pilot (pretesting) results and duration (of survey) constraints. In the case of GSE, we invert the value codes for a subset to homogenize the Likert scale. We then take the rowmean of each index with denominator n as the number of questions asked for that index. Then, we standardize the score in two ways: (a) z standardize with mean 0 and standard deviation 1 and (b) normalize between 0 and 100 using the formula $n = 100 \times (n - 1) / (5 - 1)$ where 1 and 5 represent the theoretical minimum and maximum, respectively, of the questions asked in the survey. We also compute a median value for each index to create dummies representing above-median measures which yield groups by which we split the sample into balance tables. We use the analytical weight to compute all the aforementioned measures.

Mental Health Index. The MHI-5 comprises five questions and is a subscale used to measure the quality of life and can be used to screen for depressive symptoms. There are six possible responses to the questions, scored between 1 and 6. The score for each individual therefore ranges between 5 and 30. This is then transformed into a variable ranging from 0–100 using a standard linear transformation: $100 \times ((\text{sum}$

of all answers) – 5) / 25. We also compute a good mental health value based on the literature, using a cutoff point > 76 (out of 100).¹⁸

Perceived Stress Scale. PSS-10 is a questionnaire originally developed by Cohen et al. (1983) for stress assessment and includes 10 questions with scores ranging from 0 to 4. The absolute score ranges between 0 and 40 for the 10-question version. Since we use only four questions, we produce two measures ranging between (a) 0 and 16 and (b) 0 and 40 (by multiplying by 2.5). The literature posits that 0–13 is low stress, 14–26 is moderate stress, and 27–40 is high stress. Using a cutoff < 14, we define a dummy for low stress.

Ladder of Life. We use the ‘Cantril Ladder’, or ‘Cantril's Ladder of Life Scale’, as adopted in the Gallup World Poll (Bjørnskov 2010).¹⁹ The respondent provides a score between 0 and 10 which we use in the balance tables as the variable ladder of life.

IT skills

Total number of software knowledge. We recode the variable ‘What software can you confidently use? (select all that apply)’ and generate a list of 1/0 dummies and calculate a score by summation. The score has a theoretical maximum of 8. The software list includes Excel, Word, Power Point, MySQL, PostgreSQL, Microsoft SQL Server, Oracle Database, and Microsoft Access. We then z standardize using the analytical weight.

IT skills index. We calculate the mean score of responses to the questions “I can send and receive emails,” “I can attach documents to emails,” “I can download files I receive by email or I find on a website,” and “I can search the internet for news or information on what I need” and standardize in two ways: (a) z standardize using analytical weight and (b) normalize between 0 and 100 using the formula $n = 100 \times (n - 1) / (5 - 1)$ where 1 and 5 represent the theoretical minimum and maximum, respectively, of the questions asked in the survey.

Business practices constitute a mechanism that influences business success. We adapt from Campos et al. (2017)²⁰ a list of business practices disaggregated by category into our survey. For each of these, we include a subset of questions from the original questionnaire in the 2017 study. The measures are designed to accept self-reported scores.

MCS practices

Questions	Included in the survey (Y/N)
Asks customers what products or services they would like to see	Y
Asks clients if satisfied with their products or services	N
Offers promotions	N
Changes the presentation of products or services to make them more attractive	N

¹⁸ Sources: 1. Korkeila, J. A., V. Kovess, O-S. Dalgard, M. Madianos, H-J. Salize, and V. Lehtinen. 2007. “Piloting Mental Health Indicators for Europe.” *Journal of Mental Health* 16 (3): 401–413; 2. Ware Jr., and E. John. 1999. “SF-36 Health Survey.” Also, cutoff at 52 according to Bültmann et al. (2006).

¹⁹ Source: <https://www.ncbi.nlm.nih.gov/books/NBK189562/>.

²⁰ Campos, Francisco, Michael Frese, Markus Goldstein, Leonardo Iacovone, Hillary C. Johnson, David McKenzie, and Mona Mensmann. 2017. “Teaching Personal Initiative Beats Traditional Training in Boosting Small Business in West Africa.” *Science* 357 (6357): 1287–1290.

Questions	Included in the survey (Y/N)
Used at least one form of publicity—constructed from a question asking about whether they used the following forms of advertising: (a) Written press; (b) Radio or television; (c) Classified ads through professional, trade, or religious associations; (d) Trade fair; and (e) Posters/flyers/business cards	N
Used at least two forms of publicity, constructed using the question listed above	N
Asks customers who do not come back why they did not return*	N

RKFM practices

Question	Included in the survey (Y/N)
Keeps accounting books*	N
Keeps all types of accounting books, constructed from a question asking whether entrepreneurs keep a record book only for (a) Purchases, (b) Sales, (c) Cash register operations, and (d) Inventory	N
Has a written budget*	Y
Has a budget that shows monthly expenses*	N
Has a budget that shows yearly expenses*	N
Gives receipts to customers systematically*	N
Keeps receipts from suppliers*	N
Has a business bank account*	N
Pays self a fixed salary*	N
Does not mix business and personal money*	Y
Registers all sales and purchases*	N
Able to use accounting books to see amount of money business has*	N
Able to prove to a bank they would have money left after paying expenses to reimburse a loan*	N

OPM practices

Question	Included in the survey (Y/N)
Sets sales objectives*	Y
Compares real sales to objectives, with those who do not set objectives recoded to 0	Y
Negotiates with suppliers to get a better price	N
Does not have insufficient inventory in stock: this variable was coded 1 for those who say they never had insufficient inventory in stock	N
Takes inventory of stock	N
Analyzes sales trends	N
Analyzes firm performance and calculates costs*	N
Calculates profits or losses*	Y
Knows which product or service contributes most to profits, coded from a question asking what product or service contributes most to profits.	N

IOS practices

Question	Included in the survey (Y/N)
Visits competitors to know price or products	Y
Evaluates the need in the market for their products or services	N

Question	Included in the survey (Y/N)
Seeks new markets	N
Identifies potential new customers, suppliers, competitors	N
Compares prices or quality of suppliers	N
Discusses business ideas with friends, consultants, or other entrepreneurs	Y
Seeks additional capital for the business	N
Uses internet, books, magazines, or newspapers to learn new things in the sector	Y
Discusses with other entrepreneurs in the sector	N
Seeks new production, marketing, or administrative techniques	N
Asks supplier what sells well in the sector*	N
Meets with groups of entrepreneurs*	N

For RKFM and OPM, we calculate the mean score for each observations using the questions available for each index. We report a z-standardized version using the analytical weight. For RKFM, we also create a version which includes BP_2 is “Do you have a written business plan?”

For MCS and IOS, as they collect information on whether the individual engages in a certain good business practice and the frequency, we create three dummy variables that capture this frequency in the following levels: (a) never, (b) low frequency (monthly or yearly), and (c) high frequency (weekly). For IOS, we also calculate an IOS index using the row average of the three questions. This is possible in IOS as opposed to MCS because it contains only a single question.

Monetary variables

- (a) Income
- (b) Profit
- (c) Revenues
- (d) Social assistance
- (e) Other transfers

We follow a similar procedure for each of the above. We winsorize the variables at the maximum based on the distribution as applicable in each case. In each case except (e) (which has fewer values), we winsorize at the top 1 percent while in (e) we winsorize at the top 5 percent. We also censor the minimum value at 1,000 for each variable in all non-missing observations. For *social assistance* and *other transfers*, we set to zero if the value is missing, based on whether income was reported for these observations.

Given that sometimes survey respondents are averse to/unable to report an exact figure, we also elicited interval values for each of these variables. We convert the point values to intervals and the intervals to point values to generate two fully populated variables. For the former, the approach is straightforward. For the latter, we compute the median of the reported point values across the relevant intervals for that variable and replace the missing value (in the point variable) with that median value.

We also create dummies that report whether the monetary item in question was recorded using point or intervals in the raw data.

Crossover and male-dominated sector. We first identify male-dominated sectors in Uzbekistan using data from the State Committee of the Republic of Uzbekistan²¹ on statistics. Out of 11 main sector dummies, we identify 4 of these to be male dominated and create a dummy variable *mds* to indicate this. The *mds* thus identified are manufacturing, wholesale and retail trade, transporting and storage, and other services activities. We then generate a variable *crossover* if a female entrepreneur is in an *mds*. We also generate *mds_E* as a dummy for entrepreneurs in an *mds*.

Dream job. This is a dummy variable representing whether the current job held by the respondents is their dream job or not. The variable *dreamjob_mine* is created based on the original question DJ_1 which is a categorical variable asking what their dream job is, with multiple options: current job, running a different business, work as a professional, working abroad, work as a salary employee in public/private sector, others.

Food insecurity. Dummy variable cloning W_11 and asking whether during the last 30 days, the respondent was worried about not having food to eat.

Risk aversion. We classify risk aversion through a preference elicitation method, whereby the respondent is asked to make a choice between hypothetical lottery scenarios by specifying whether s/he prefers a payoff of a specified value or a gamble of fair odds with a certain payoff of a specific value (equal likelihood of winning or losing the gamble). The questions for the risk aversion scale were obtained from Boyle, Yu, Buchman, and Bennett (2012) and Boyle, Yu, Buchman, Laibson, and Bennett (2011) and were presented to the participants in a randomized order. We created two variables: *riskaversion*, a categorical variable ranging from 1 (very risk loving) to 5 (very risk averse), and a dummy variable *riskloving*.

²¹ <https://www.adb.org/sites/default/files/institutional-document/479841/uzbekistan-country-gender-assessment-update.pdf> .